

# Caecilia Charbonnier - CV



## 1. PERSONAL DETAILS

Last name: **CHARBONNIER**

Sex: Female

Birthdate: 7 December 1981

Nationality: Swiss and French

Marital status: Single

First name: **Caecilia**

Place of birth: Geneva

Canton of origin: Geneva

Number of children: 0

Professional address:

Artanim Foundation

40, chemin du Grand-Puits - 1217 Meyrin, Switzerland

Tel: +41 (0)22 980 91 92

E-mail: [caecilia.charbonnier@artanim.ch](mailto:caecilia.charbonnier@artanim.ch)

Dreamscape Immersive

40, chemin du Grand-Puits - 1217 Meyrin, Switzerland

Tel: +41 (0)22 980 91 12

E-mail: [ccharbonnier@dreamscapevr.com](mailto:ccharbonnier@dreamscapevr.com)

Website: [www.charbonnier.ch](http://www.charbonnier.ch)

## 2. ACTUAL POSITIONS

### **Artanim Foundation – Switzerland**

**Co-Founder, President, Research and Managing Director**

**04.2011**

Co-founder, President, Research and Managing Director of Artanim, a leading center specialized in motion capture technologies.

Fundraising and development of research projects (EU program, CTI/Innosuisse, SNSF) in computer graphics, virtual reality and medicine.

Creator and producer of award-winning audiovisual projects and events (live performances, VR/AR experiences, museal installations, etc.). Director of immersive experiences such as *Real Virtuality: Immersive Explorers*, *VR\_I, Geneva 1850*, *Abord the Mayflower* and *Escalade: The Darkest Night*.

Motion capture services (full performance capture) for films, video games, etc.

Development of educational programs in motion capture, 3D animation, biomechanics and medical imaging.

Website: [www.artanim.ch](http://www.artanim.ch)

### **Dreamscape Immersive Inc. – USA**

**Co-Founder and Executive Consultant**

**07.2023**

Co-founder of Dreamscape Immersive Inc., a leading VR company backed by Hollywood heavyweights leveraging Artanim's *Real Virtuality* technology.

Former CTO and Chief Innovation Officer of the company, now acting as executive consultant for all things related to technological development, R&D and innovation strategy of immersive VR products for location-based entertainment, education and training.

Acting as well on a project-basis as head of production and director of immersive experiences for location-based entertainment, immersive classrooms and retail applications.

Website: [www.dreamscapeimmersive.com](http://www.dreamscapeimmersive.com) and [www.dreamscapelearn.com](http://www.dreamscapelearn.com)

**School of Arts, Media and Engineering, Herberger Institute, Arizona State University – USA**  
**Professor of Practice** **07.2020**

**Faculty of Medicine, University of Geneva – Switzerland**  
**Senior Lecturer** **05.2021**

**Virtual Switzerland Association – Switzerland**  
**Founder and President** **10.2016**

Founder and President of the Virtual Switzerland Association, the national network that aims to be a catalyzer of innovation in the fields of immersive technologies and virtual environments simulation by promoting and facilitating the adoption, development, and technological transfer of immersive technologies among academic and industrial Swiss players.

This network was funded by Innosuisse as a National Thematic Network, period 2017-2020, CHF 1,320,000.

### **3. DIPLOMAS**

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**Federal Maturity, type C** **2001**

**License in Information and Communication Systems (master equivalent)** **2001-2005**  
**with a minor in International Relations (HEI)**

University of Geneva, Faculty of Economics and Social Sciences (SES)

- License thesis: "Registration of 3D models from MRI using geometric constraints for the anatomical modeling of soft tissues", Thesis Director: Prof. Nadia Magnenat-Thalmann
- Indicative units attended: Databases, Networking, Internet and Multimedia, Object Oriented Programming with Java, Systems Programming, Computer Graphics, Animation and Virtual Reality, Graphical User Interfaces, International Public Law, Political Economy, Political Sciences, Economics History, Political Geography, Sociology

**Master of Advanced Studies (MAS) in Computer Graphics** **2005-2006**

Polytechnic School of Lausanne (EPFL), Faculty of Sciences, Department of Computer Science

- Master thesis: "Virtual Mirror: A real-time motion capture application for virtual-try-on", Thesis Director: Prof. Nadia Magnenat-Thalmann
- Indicative units attended: Computer Graphics, Image Processing and Computer Vision, VR Programming with Java and C++, Visualization, Animation and Virtual Reality, Internet and Multimedia, Scientific and Medical Communication

**PhD in Science, interdisciplinary mention (*summa cum laude*)** **2007-2010**

University of Geneva, Faculty of Sciences, Department of Computer Science

Title of the thesis: "Extreme Hip Movements Based on Optical Motion Capture"

Thesis director: Prof. Nadia Magnenat-Thalmann, University of Geneva

Jury members: Prof. José Rolim (University of Geneva), Prof. Franz-Erich Wolter (Leibniz Hannover University), Dr. Mark de Zee (Aalborg University) and Dr. Eric Stindel (University Hospital of Brest)

**Certificate of Good Clinical Practice for co-investigators** **2014**

University Hospitals of Geneva / Faculty of Medicine, University of Geneva

Approved by Swissmedic, AGEK, SAMS, ISFM, SSIC, SCTO

**Good Clinical Practice Course for sponsors-investigators / investigators** **2015**

University Hospitals of Geneva / Faculty of Medicine, University of Geneva

Approved by Swissmedic, AGEK, SAMS, ISFM, SSIC, SCTO

**Habilitation Thesis for the title of Privat-Dozent (PD)****2017**

University of Geneva, Faculty of Medicine, Department of Radiology and Medical Informatics

Title of the thesis: "Combining Medical Imaging and Motion Capture for the Dynamic Analysis of Personalized Osteoarticular Structures"

**4. PROFESSIONAL ACTIVITIES**

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**Faculty of Medicine, University of Geneva – Switzerland*****Privat-docent*****2018-2021****Dreamscape Immersive Inc. – USA*****Co-Founder and CIO*****2019-2023**

Co-founder and Chief Innovation Officer of Dreamscape Immersive Inc., a leading VR company backed by Hollywood heavyweights leveraging Artanim's *Real Virtuality* technology.

Supervision of the technological development and R&D of the company in close collaboration with the CTO, responsible for the innovation strategy and the development of innovative VR products at the technical and artistic interface for location-based entertainment and education.

Supervision of the Dreamscape Immersive Europe's content team, head of production and director of immersive experiences such as *The Clockwork Forest* developed in partnership with Audemars Piguet.

CEO of Dreamscape Immersive Europe Sàrl (subsidiary), management and supervision of the administration, subsidiary's activities, finances and human resources.

Website: [www.dreamscapeimmersive.com](http://www.dreamscapeimmersive.com) and [www.dreamscapelearn.com](http://www.dreamscapelearn.com)

***Co-Founder and CTO*****2016-2019**

Acting as Co-founder and Chief Technology Officer of Dreamscape Immersive Inc. Supervision of the technological development and R&D of the company, responsible for the development of the immersive multi-user VR platform for location-based entertainment.

CEO of Dreamscape Immersive Europe Sàrl (subsidiary), management and supervision of the administration, subsidiary's activities, finances and human resources.

**Artanim Interactive Sàrl – Switzerland*****Co-Founder and CEO*****2015-2016**

Co-founder and CEO of Artanim Interactive Sàrl, a VR tech company set up as the spin-off of Artanim Foundation.

**ArtiFX Sàrl – Switzerland*****Co-Founder and Co-Director*****2010-2015**

Co-founder and co-director of ArtiFX Sàrl, a company specialized in extreme filming, visual effects and postproduction.

Participation in the production of movies and documentaries as scriptwriter, photographer and camerawoman both terrestrial and underwater (PADI Rescue diver).

Portfolio available at: [www.artifx.ch](http://www.artifx.ch)

**Agalma Foundation – Switzerland*****Secretary General*****2010-2013**

Secretary General of Agalma Foundation, a space for reflection and research in neuroscience, psychoanalysis and art.

Management and supervision of the administration, foundation's activities, finances and human resources.

Head of communications and external relations, organizer of a TV show series and of international conferences and events.

**Antinea Foundation – Switzerland****Member of the Communication Team****2006-2012**

Volunteer for the Antinea Foundation that seeks to improve the scientific knowledge of the oceans to protect the marine environment.

3D designer and video maker for communication projects that aim to sensitize the public to the protection of the environment.

Webmaster of "The Changing Oceans Expedition" website.

**ArtificiElles Sàrl – Switzerland****Co-Founder and Co-Director****2009-2011**

Co-founder and co-director of ArtificiElles Sàrl, a company specialized in 3D and web development.

Design and creation of websites in Flash/PHP/Ajax, 3D modeling and animation, virtual visits, movies and commercials, etc.

Portfolio available at: [www.charbonnier.ch](http://www.charbonnier.ch)

**MIRALab, University of Geneva – Switzerland****Research Assistant****2004-2010**

Working at an internationally well-known interdisciplinary graphics and virtual reality research center, interacting with numerous researchers world-wide. Medical research and simulation, including the following topics: optical motion capture and motion analysis, 3D body scanning, biomechanics, ontology, image processing, segmentation, surface deformation and registration.

Contribution in the following projects:

- CO-ME (SNSF NCCR project): Development of a semantic-driven clinical examination platform, integrating various acquisition modalities (MRI, 3D scanner, motion capture, etc.). Motion study of the hip joint in extreme postures.
- 3D ANATOMICAL HUMAN (UE project, MRTN-CT-2006-035763): Creation of a medical ontology of the musculoskeletal system, manual segmentation and 3D reconstruction of the lower limb from MRI.
- FOCUS K3D (UE project, ICT-2007-214993): Evaluation of knowledge systems and dissemination actions for the adoption and the use of those technologies, in order to foster the coding and sharing of 3D media content.

Actively authoring and co-managing several Swiss and EU research projects (EU FP6, FP7, CH SNSF Div. II).

Presenter at and co-organizer of international conferences, fairs and events.

Bachelor and master students' co-supervision. Assistant for the courses "Outils Informatiques" and "Animation et Multimedia", B.Sc. courses, years 2004 - 2008, University of Geneva.

Webmaster and system administrator of the lab.

**Project Manager****2005-2006**

Responsible for the administrative management and coordination of EU and Swiss projects in the lab. Tasks including the accountancy and the management of human resources, the redaction of EU and SNSF reports, and the administrative coordination between the various project's partners.

**Télévision Suisse Romande (TSR) – Switzerland****Consultant****2001-2009**

Consultant and live interviews for sport-related programs, such as Roland-Garros and Wimbledon.

**Jet d'Encres, University of Geneva – Switzerland****Editor in Chief****2002-2004**

Editor in chief of the bi-annual newsletter of the Political Sciences and International Relations Department. Coordination of the team, journalist and edition of the journal template.

**Tennis Teacher****2001-2004**

Tennis teacher for Youth & Sport, group and individual courses.

**Tribune de Genève – Switzerland****Trainee****2002**

Trainee (2 months) for the daily newspaper at the Tribune de Genève, Sports Department.

## 5. TEACHING / STUDENT SUPERVISION

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**Pre-graduate academic program**

- Technologie et simulation 3D en orthopédie et médecine du sport, B.M. course 223O323, 3 ECTS credits, Faculty of medicine, University of Geneva, since 2014 (28 hours / year)
- Techniques and Challenges in Creating Highly Immersive Experiences in Free-Room LBVR, M.Sc. seminar, Faculty of computer science, University of Geneva, April 29<sup>th</sup>, 2024 (2 hours)
- Immersive technologies: Applications in Medicine, Entertainment and Education, M.Sc. seminar, Faculty of computer science, University of Geneva, April 25<sup>th</sup>, 2022 (2 hours)
- Immersive technologies: Is the future entirely virtual?, M.Sc. seminar, Faculty of computer science, University of Geneva, November 9<sup>th</sup>, 2020 (2 hours)
- Réalité virtuelle et augmentée : applications en médecine et dans le divertissement, M.Sc. seminar, Faculty of computer science, University of Geneva, November 25<sup>th</sup>, 2019 (2 hours)
- Réalité virtuelle et augmentée : applications en médecine et dans le divertissement, M.Sc. seminar, Faculty of computer science, University of Geneva, April 9<sup>th</sup>, 2018 (2 hours)
- Visualisation et reconstruction 3D en imagerie médicale: techniques et applications, B.M. course 223O322, 3 ECTS credits, Faculty of medicine, University of Geneva, years 2015-2017 (14 hours / year)
- Research at Artanim: from medicine to virtual reality, M.Sc. seminar, Faculty of computer science, University of Geneva, November 28<sup>th</sup>, 2016 (2 hours)
- Research at Artanim: from medicine to virtual reality, M.Sc. seminar, Faculty of computer science, University of Geneva, April 4<sup>th</sup>, 2016 (2 hours)
- Mouvement et la mode, M.A workshop Media Design, 3 ECTS credits, Geneva University of Art and Design, semester 2016-2017 (9 hours)
- 3D Modeling and Animation, M.A course Media Design, 3 ECTS credits, Geneva University of Art and Design, years 2014-2016 (30 hours / year)
- 3D Modeling and Animation, M.A course Media Design, 6 ECTS credits, Geneva University of Art and Design, semester 2013-2014 (42 hours)
- Outils Informatiques, B.Sc. course 4104002, 6 ECTS credits, University of Geneva, years 2004-2008 (22 hours / year)
- Animation et Multimédia, B.Sc. course 4204003, 6 ECTS credits, University of Geneva, years 2004-2008 (22 hours / year)

**Post-graduate academic program and continuing training**

- Capture de mouvement et simulation de l'épaule : applications, continuing training course of the Orthopedics Department, HUG, June 19<sup>th</sup>, 2015 (1 hour)
- Imagerie 3D en radiologie ostéoarticulaire, post-graduate and continuing training course of the Radiology Department, HUG, May 26<sup>th</sup>, 2014 (1 hour)
- La modélisation des articulations en 3D, continuing training course for physiotherapists, HUG, November 10<sup>th</sup>, 2009 (1 hour)

**Workshops / tutorials**

- Workshop World Confederation for Physical Therapy 2019: "3D simulation and VR/AR: New research and simulation tools", May 13<sup>th</sup>, 2019 (3 hours)

- Workshop World VR Forum 2018: "Introduction to motion capture", June 9<sup>th</sup>, 2018 (2 hours)
- Workshop Montreux Jazz Festival 2014: "3DInMotion – Mapping motion capture with musical expression", Montreux Jazz Festival, July 12<sup>th</sup>, 2014 (1 hour)
- Workshop Electron 2014: "3DIM – Mocap and multichannel audio", Electron Festival, April 20<sup>th</sup>, 2014 (3 hours)
- Workshop WEP2014: "Behind the scene: from motion capture to 3D character animation", King Abdullah University of Science and Technology, Jeddah, January 23rd-26th-27th 2014 (10 hours)
- Workshop FOCAL: "Introduction à la motion capture: de la capture à l'intégration des données", Neuchâtel International Fantastic Film Festival (NIFFF), July 8<sup>th</sup>, 2013 (6 hours)
- Workshop FOCAL: "Motion Capture: de la capture à l'intégration des données", Artanim, December 21<sup>st</sup>, 2011 (6 hours)
- Tutorial: "3D Body Scanning and Motion Analysis", 3D Physiological Human Workshop, Zermatt, December 3<sup>rd</sup>, 2008 (1 hour)

#### Member of thesis jury

- Meryam Butt, "L'intelligence artificielle au service de la détection, de la position et du mouvement : une assistance pour la technique en radiologie médicale ?", Master, 2020, Master of Science conjoint HES-SO - UNIL en Sciences de la santé, HES-SO
- Matteo Mancuso, "Evaluation and robotic simulation of the glenohumeral joint", PhD, 2020, Faculty of Science and Engineer Techniques, EPFL
- Arianna Religi, "Ground UV irradiance and 3D rendering techniques to predict anatomical solar UV exposure in skin cancer research and prevention", PhD, 2018, Faculty of Science, Department of Computer Science, University of Geneva

#### Students supervision

- Jacky C.K. Chow, Development of a new motion tracking technique of the shoulder in fluoroscopic imaging sequences, 2013, PhD internship, University of Calgary
- Alexandre Corsini, Création d'un manuel d'utilisateur en Flash pour un programme d'animation de cheveux en temps réel, 2007, Bachelor Project, MIRALab, University of Geneva
- Maryam Arasteh, Evaluation and Comparison of latest 2D/3D Web Technologies, 2008, Master Thesis, MIRALab, University of Geneva

## 6. RESEARCH / FUNDED R&D PROJECTS

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The team of Artanim Foundation includes 11 researchers and 2 administrative collaborators. The research activities of the laboratory concerned or concern for the most part the following fields:

- Joint biomechanics, in particular the 3D modeling and motion analysis of the hip, knee and shoulder
- 3D simulation and computer-assisted surgical planning of native or prosthetic joints
- Medical imaging, movement science and methods in virtual reality rehabilitation
- 3D body scanning and motion capture from different technologies (optical, inertial, markerless)
- Virtual and augmented reality, real-time motion interaction and 3D interactive characters animation

Since 2011, 7'556'000 CHF in competitive third-party funding was obtained to finance the activities of the laboratory. List of completed or ongoing R&D projects:

#### Real Virtuality

Duration: April 2015 - undertermined

Funding: Artanim Foundation

Description: Development of a multi-user platform combining VR headsets, full-body motion capture and a real-life stage set incorporating haptic elements for location-based VR applications.

### **Presence**

Duration: January 2024 - December 2027

Financement : EU HORIZON-CL4-2023-HUMAN-01-CNECT / SERI (REF-1131-52104) - € 8,521,645 (total budget) et € 865,937 (Artanim's budget)

Coordinator: Sergi Fernandez Langa, Fundació i2CAT (Espagne)

Co-applicants: Actronika (France), Universitaet Hamburg (Germany), Ethniko Kentro Erevnas Kai Tehcnologikis Anapty (Greece), Raytrix GMBH (Germany), SenseGlove B.V. (Netherlands), Go Touch VR SAS (France), Didimo S.A.(Portugal), Vection Italy Srl (Italy), Universitat de Barcelona (Spain), Unity Technologies (Denmark), Sound Holding B.V. (Netherlands), Interuniversitair Micro-Electronica Centrum (Belgium), Joanneum Research Forschungsgesellschaft MBH (Austria), SyncVR Medical B.V. (Netherlands), Zaubar UG (Haftungsbeschraenkt) (Germany), [Fondation Artanim](#)

Description: Development of tools to increase presence in virtual reality, in particular by producing realistic social interactions between avatars and virtual humans.

### **MoRehab XR**

Duration: August 2020 - December 2024

Funding: Artanim Foundation

Partners: Dr. Alexandre Lädermann, La Tour Hospital – Division of Orthopedic and Trauma Surgery, Antoine Seurot, La Tour Hospital – Service of Physical Therapy

Description: Development of a rehabilitation system based on motion tracking and interactive VR games for the monitoring of the patient and gamification of the rehabilitation program.

### **Char4VR**

Duration: September 2020 - December 2023

Funding: Artanim Foundation

Description: Development of a framework for the animation of interactive virtual characters using a combination of techniques based on machine learning and cognitive science.

### **Markerless Mocap**

Duration: September 2020 - September 2023

Funding: Artanim Foundation

Partner: Vicon Motion System Ltd.

Description: Development of a markerless solution for the capture of users in LBVR scenarios based on Machine Learning techniques and synthetic datasets.

### **Mocap RSA**

Duration: January 2022 - June 2023

Funding: FORE Foundation / La Tour Hospital - CHF 25,000

Main applicant: Dr. Caecilia Charbonnier, [Artanim Foundation](#)

Partners: Dr. Alexandre Lädermann, La Tour Hospital – Division of Orthopedic and Trauma Surgery, Prof. Jérôme Schmid – Geneva Health School (HEdS)

Description: Motion capture and simulation of reverse shoulder prostheses to evaluate post-operative ranges of motion during daily living activities.

### **Minimally invasive ablation of liver malignancies using a new concept of near field–tailored MR-guided high intensity focused ultrasound**

Duration: July 2019 - June 2023

Funding: SNF project n°320030\_185308 / 1 - CHF 363,320 (total budget) and CHF 90,830 (Artanim's budget)

Main applicant: Prof. Sylvain Terraz, University Hospitals of Geneva – Service of Radiology

Co-applicant: Prof. Rares Salomir, University Hospitals of Geneva – Service of Radiology

Partners: Dr. Caecilia Charbonnier, [Artanim Foundation](#), Dr. Romain Breguet University Hospitals of Geneva – Service of Radiology, Prof. Arnaud Roth, University Hospitals of Geneva – Service of Oncology

Description: Treatment of liver malignancies with MRgHIFU using fast volumetric ablation.

### **VR+4CAD: Closing the VR-loop around the human in Computer-Aided Design**

Duration: June 2020 - November 2021

Funding: Innosuisse project n°42975.1 IP-ICT - CHF 398,660 (total budget) and CHF 209,237 (Artanim's budget)

Main applicant: Dr. Caecilia Charbonnier, [Artanim Foundation](#)

Co-applicant: Prof. Silvia Giordano, Scuola universitaria professionale della Svizzera italiana (SUPSI)

Description: VR+4CAD aims to tackle issues limiting the use of VR in manufacture and design such as the lack of full circle interoperability between VR and CAD, the friction experienced when entering a VR world and the limited feedback provided about the experience for future analysis.

#### **Multiparametric and quantitative imaging in head and neck squamous cell carcinoma**

Duration: January 2018 - December 2020

Funding: SNF project n°320030\_173091 / 1 - CHF 368,630 (total budget) and CHF 61,500 (Artanim's budget)

Main applicant: Prof. Minerva Becker, University Hospitals of Geneva – Service of Radiology

Partners: Dr. Caecilia Charbonnier, [Artanim Foundation](#), Dr. Habib Zaidi, University Hospitals of Geneva – Service of Nuclear Medicine, Dr. Marc Pusztaszeri, University of Geneva – Department of Clinical Pathology, Dr. Pavel Dulguerov, University Hospitals of Geneva – Unit of Rhinology-Olfactology Otorhinolaryngology

Description: 3D reconstruction of ORL tumors and development of a histologically validated computer-aided tumor model for the accurate contouring of gross tumor volume for radiotherapy planning.

#### **VR-Together**

Duration: October 2017 - December 2020

Funding: EU H2020, ICT-19-2017 - € 3,929,937 (total budget) and € 445,000 (Artanim's budget)

Coordinator: Sergi Fernandez Langa, Fundació i2CAT (Spain)

Co-applicants: Nederlandse Organisatie voor toegepast-natuurwetenschappelijk Onderzoek (The Netherlands), Centrum Wiskunde & Informatica (The Netherlands), Centre for Research & Technology Hellas (Greece), Viaccess-Orca (France), Future Lighthouse (Spain), Entropy (Spain), Motion Spell (France), [Artanim Foundation](#)

Description: Development of software tools for the production and delivery of social VR experiences combining photographic-quality content with a strong feeling of co-presence.

#### **Scapulo-Thoracic Alignment in B2 Glenoids**

Duration: April 2019 - December 2019

Funding: FORE Foundation / La Tour Hospital - CHF 30,000

Main applicant: Dr. Caecilia Charbonnier, [Artanim Foundation](#)

Partner: Dr. Alexandre Lädermann, La Tour Hospital – Division of Orthopedic and Trauma Surgery

Description: Evaluation of scapula-thoracic alignment in B2 glenoids.

#### **CycloVR**

Duration: April 2019 - September 2019

Funding: University Hospitals of Geneva, Artanim Foundation - CHF 35,000

Main applicants: Nicolas Dousse, University Hospitals of Geneva – Division of Intensive Care, Dr. Caecilia Charbonnier, [Artanim Foundation](#)

Description: Development of a VR module connected to a prototype cycloergometer for rehabilitation in intensive care and physiotherapy.

#### **HoloMed**

Duration: September 2016 - February 2018

Funding: FORE Foundation / La Tour Hospital, Hirslanden Clinique La Colline - CHF 260,000

Main applicant: Dr. Caecilia Charbonnier, [Artanim Foundation](#)

Partner: Dr. Alexandre Lädermann, La Tour Hospital – Division of Orthopedic and Trauma Surgery, Hirslanden Clinique La Colline – Division of Orthopedic and Trauma Surgery

Description: Development of an augmented reality tool for sport medicine and rehabilitation allowing the visualization and analysis of the anatomy in real time and in motion.

#### **Reverse Shoulder Arthroplasty**

Duration: January 2017 - December 2017

Funding: Hirslanden Clinique La Colline - CHF 60,000

Main applicant: Dr. Caecilia Charbonnier, [Artanim Foundation](#)

Partner: Dr. Alexandre Lädermann, Hirslanden Clinique La Colline – Division of Orthopedic and Trauma Surgery

Description: Effect of critical shoulder angle, glenoid lateralization and humeral inclination on range of motion in reverse shoulder arthroplasty.

#### **3D Proto – Strategic Enhancement of Garment Prototyping Processes for the Active Sportswear Sector by Means of Virtual 3D Simulations**

Duration: December 2015 - December 2016



Funding: CTI project n°18124.1 PFES-ES - CHF 97,856 (total budget) and CHF 47,960 (Artanim's budget)  
Main applicant: Prof. Christiane Luible, Geneva University of Art and Design  
Co-applicants: Dr. Caecilia Charbonnier, [Artanim Foundation](#), Dr. Ulricke Froitzheim, Odlo International SA  
Description: Enhancement of sports garment prototyping by means of virtual 3D simulations.

#### **Motion and Unconsciousness**

Duration: January 2013 - December 2016  
Funding: Agalma Foundation - Approx. CHF 310,000 (total budget) and CHF 230,000 (Artanim's budget)  
Main applicants: Prof. François Ansermet, University Hospitals of Geneva Geneva – Service of Child and Adolescent Psychiatry, Prof. Pierre Magistretti, Brain Mind Institute – EPFL  
Co-applicant: Dr. Caecilia Charbonnier, [Artanim Foundation](#)  
Description: Study of behavioral correlates on the subjective sensation of synchrony using motion capture, respiration measurements and EEG.

#### **ArthroPlanner**

Duration: November 2014 - October 2016  
Funding: Private - CHF 290,000  
Main applicant: Dr. Caecilia Charbonnier, [Artanim Foundation](#)  
Description: Development of dynamic surgical planning solutions for the hip, shoulder and knee.

#### **Shoulder Instability**

Duration: August 2014 - July 2016  
Funding: FORE Foundation / La Tour Hospital - CHF 40,000  
Main applicant: Dr. Caecilia Charbonnier, [Artanim Foundation](#)  
Partners: Dr. Alexandre Lädermann, La Tour Hospital – Division of Orthopedic and Trauma Surgery, Dr. Frank Kolo, Rive Droite Radiology Center SA  
Description: Kinematic study of glenohumeral anterior instability before and after surgical treatment.

#### **Fashioning Movement**

Duration: November 2013 - October 2015  
Funding: HES-SO - CHF 152,000 (total budget) and CHF 44,000 (Artanim's budget)  
Main applicant: Prof. Christiane Luible, Geneva University of Art and Design  
Co-applicant: Dr. Caecilia Charbonnier, [Artanim Foundation](#)  
Description: Objective analysis of garment comfort using 3D simulation tools on animated bodies.

#### **To Fit**

Duration: June 2014 - April 2015  
Funding: ToFit Sàrl - CHF 40,000  
Main applicant: Sylvain Chagué, [Artanim Foundation](#)  
Partner: ToFit Sàrl  
Description: Development of a complete 3D body and head scanning solution.

#### **Shoulder Rehabilitation**

Duration: April 2014 - December 2014  
Funding: University Hospitals of Geneva - CHF 16,000  
Main applicant: Dr. Caecilia Charbonnier, [Artanim Foundation](#)  
Partner: Dr. Nicolas Holzer, University Hospitals of Geneva – Department of Orthopedic Surgery and Traumatology  
Description: Impact of strengthening shoulder exercises on the glenohumeral joint and rotator cuff.

#### **Thoracic Outlet Syndrome**

Duration: March 2014 - December 2014  
Funding: FORE Foundation / La Tour Hospital - CHF 16,000  
Main applicant: Dr. Caecilia Charbonnier, [Artanim Foundation](#)  
Partners: Dr. Alexandre Lädermann, La Tour Hospital – Division of Orthopedic and Trauma Surgery, Dr. Frank Kolo, Rive Droite Radiology Center SA  
Description: Kinematic study of the thoracic outlet syndrome, a rare condition involving nerves compression in the costoclavicular area.

### **Taylormatic**

Duration: December 2012 - October 2014

Funding: NoBrandSolution Sàrl - CHF 187,000

Main applicant: Sylvain Chagué, [Artanim Foundation](#)

Partner: NoBrandSolution Sàrl

Description: Development of a virtual mirror and an interactive cross-platform retail solution, including a high quality 3D product viewer and configurator.

### **Shouder3D – Kinematic Modeling of the Human Shoulder**

Duration: June 2012 - March 2014

Funding: La Tour Hospital, European Society of Shoulder and Elbow Surgery - CHF 125,000

Main applicant: Dr. Caecilia Charbonnier, [Artanim Foundation](#)

Partners: Dr. Alexandre Lädermann, La Tour Hospital – Division of Orthopedic and Trauma Surgery, Dr. Frank Kolo, Rive Droite Radiology Center SA

Description: Development of a new kinematic model of the shoulder complex coupling magnetic resonance imaging (MRI) and motion capture.

### **MyHip – Patient-Specific Pre-operative Planning and Intra-operative Surgical Guidance for Total Hip Arthroplasty**

Duration: February 2012 - January 2014

Funding: CTI project n°13573.1 PFFLE-LS - CHF 274,760 (total budget) and CHF 118,000 (Artanim's budget)

Main applicant: Prof. Jérôme Schmid, Geneva Health School (HEdS)

Co-applicants: Dr. Caecilia Charbonnier, [Artanim Foundation](#), Dr. Panayotis Christofilopoulos, University Hospitals of Geneva – Department of Orthopedic Surgery and Traumatology, Dr. Massimiliano Bernardoni, Medacta International SA

Description: Development of a dynamic simulation module based on motion capture and integrated to the preoperative planning of total hip arthroplasty.

### **Sexual Activity after Total Hip Arthroplasty: A Motion Capture Study**

Duration: January 2013 - April 2013

Funding: Artanim Foundation

Coordinator: Dr. Caecilia Charbonnier, [Artanim Foundation](#)

Description: Study of the relative risks of sexual activity in patients implanted with hip prosthesis.

Partners: Dr. Panayotis Christofilopoulos, University Hospitals of Geneva – Department of Orthopedic Surgery and Traumatology, Dr. Massimiliano Bernardoni, Medacta International SA

## **7. OTHER FUNDED PROJECTS**

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### **Motion capture and 3D animations**

- Motion capture for the Art Basel 2022's VR experience **Albert Oehlen: Basement Drawing**, MacInnes Studio & Vive Arts, June 2020.
- Motion capture and animation for the AR application **Johannes Badrutt**, Apelab, September 2019.
- Motion capture and animation for the AR dance piece **Magic Window**, Cie Gilles Jobin, September 2019.
- Motion capture for a short-animated film at the exhibition **Niklaus Manuel and the Reformation Period**, Historical Museum of Bern, November 2016.
- Motion capture for a video fiction **The Next Round**, Quentin Lannes, June 2016.
- Motion capture and animation for a contemporary dance performance **Força Forte**, Cie Gilles Jobin, September 2015.
- Motion capture and animation for **Téo & Léonie** Trailer, Kenzan, February 2015.
- Short 3D animations for **Gexfix**, January 2015.
- Motion capture and animation for a mobile video game, **Pom Pom Interactive**, September 2014.
- Motion capture and short 3D animations for the **Omega booth at the Sochi Olympic Games**, Olympic Games Sochi 2014, Sochi, February 2014.

### Immersive experiences, interactive installations

- Creation and development of a multiuser VR simulator **UltraMagic Balloon Flight Simulator**, permanently installed at [Espace Ballon](#) in Châteaux-d'Oex from January 20<sup>th</sup> 2024.
- Creation, production and direction of the immersive experience **Escalade: The Darkest Night**, permanently exhibited at [Dreamscape Geneva](#), from December 9<sup>th</sup> 2023.
- Creation, production and direction of the immersive experience **Geneva 1850**, initially presented at Maison Tavel and Museum of Art and History, Geneva, April 12<sup>th</sup>-September 29<sup>th</sup> 2019, then exhibited at [Dreamscape Geneva](#), July 1<sup>st</sup>, 2022-December 1<sup>st</sup> 2023.
- Creation, production and direction of the immersive experience **The Clockwork Forest**, Audemars Piguet, Le Locle, 2021-2022.
- Creation, production and direction of the immersive experience **Aboard the Mayflower**, International Museum of the Reformation, Geneva, October 26<sup>th</sup>-August 31<sup>st</sup>, 2021.
- Co-creation in collaboration with the Cie Gilles Jobin, tech development, motion capture and 3D scans of the immersive dance piece **VR\_I**, on world tour in 2017-2020 and notably presented at:
  - Mostra Internazionale d'Arte Cinematografica / Biennale di Venezia 2018, Venice, August 29<sup>th</sup>-September 8<sup>th</sup>, 2018.
  - Sundance Film Festival New Frontier 2018, Park City, January 18<sup>th</sup>-28<sup>th</sup>, 2018.
  - HeK – House of electronic Arts, Basel, October 25<sup>th</sup>-29<sup>th</sup>, 2017.
  - Théâtre Forum Meyrin, Meyrin, October 12<sup>th</sup>-15<sup>th</sup>, 2017.
  - Festival du nouveau cinéma, Montreal, October 6<sup>th</sup>-10<sup>th</sup>, 2017.
  - Other dates: see <http://www.vr-i.space/dates/>
- Co-creation, production and co-direction of the immersive experience **Wake up and dream**, WVR17, Crans Montana, May 10<sup>th</sup>-14<sup>th</sup>, 2017.
- Creation, production and direction of the immersive experience **Real Virtuality: Immersive Explorers** presented at:
  - Swissnex, Bangalore and Mumbai, January 14<sup>th</sup>-21<sup>st</sup>, 2017.
  - Cannes Festival 2016, Cannes, May 11<sup>th</sup>-14<sup>th</sup>, 2016.
  - FMX 2016, Stuttgart, April 26<sup>th</sup>-29<sup>th</sup>, 2016.
  - Laval Virtual 2016, Laval, March 23<sup>rd</sup>-27<sup>th</sup>, 2016.
  - Lift 16, Geneva, February 11<sup>th</sup>-12<sup>th</sup>, 2016.
  - Sundance Film Festival New Frontier 2016, Park City, January 22<sup>nd</sup>-30<sup>th</sup>, 2016.
  - Tous Ecrans Festival 2015, Geneva, November 6<sup>th</sup>-7<sup>st</sup>, 2015.
  - Swissnex, San Francisco, August 17<sup>th</sup>-21<sup>st</sup>, 2015.
- Creation, production and direction of the interactive installation **Montreux Jazz Video Jukebox**, Montreux Jazz Festival 2015, Montreux, July 3<sup>rd</sup>- 18<sup>th</sup>, 2015.
- Creation, production and direction of the interactive installation **3D In Motion**, Caprices Festival 2015, Crans-Montana, April 9<sup>th</sup>- 12<sup>th</sup>, 2015.
- Tech development of the interactive installation **Omega Light Tracking**, Baselworld 2013, Basel, April 25<sup>th</sup>-May 2<sup>nd</sup>, 2013.
- Tech development of the interactive installation **Tissot Wrist Watch** in collaboration with the Geneva University of Art and Design and Trivial Mass Production, Baselworld 2012, Basel, March 8-15<sup>th</sup>, 2012.

### Live performances

- Creation, production and direction of the dance show **Star Wars**, Grand Prix d'Horlogerie de Genève, Grand Théâtre de Genève, Geneva, November 19<sup>th</sup>, 2011.
- Creation, production and direction of the dance show **La danse dans tous ses états** in collaboration with the MIRALab-team, the University Hospitals of Geneva and the Grand Théâtre de Genève, Centre Médical Universitaire, Geneva, June 13<sup>th</sup>, 2009.

## 8. GRANTS

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- Hans Wilsdorf Foundation, grant to participate to the 10<sup>th</sup> International Symposium on 3D Analysis of Human Movement, Amsterdam, October 2008.

- Hans Wilsdorf Foundation, research grant, years 2007-2009.

## 9. AWARDS / DISTINCTIONS

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- Recipient of the **Special Jury Prize** at the **2022 Great Economy Awards**, Geneva, 2022.
- Selected as part of the **100 Digital Shapers** (100 most important Swiss individuals in all things digital), 2018 edition.
- **Finalist of the Swiss ICT Award 2017** for the VR platform "Real Virtuality", Swiss ICT Award, Lucerne, 2017.
- *In collaboration with the Cie Gilles Jobin: Winner of the Innovation Award and of the Public Award* for the virtual reality dance piece "VR\_I", Festival du nouveau cinéma, Montreal, 2017.
- Selected as part of the **Forum des 100** (100 personalities who make the French-speaking part of Switzerland), 2017 edition.
- Winner of the **2016 Laval Virtual Award** in the category 3D Game and Entertainment for the VR platform "Real Virtuality", Laval Virtual 2016, Laval, 2016.
- **Finalist of the "Immersive Realities (VR/AR) contest"** awarding the best augmented/virtual reality experiences possible using today's technologies for the VR platform "Real Virtuality", SIGGRAPH 2015, Los Angeles, 2015.
- *In collaboration with La Tour Hospital and the Rive Droite Radiology Center SA: Best Technical Paper Award* for the paper entitled "A Patient-Specific Measurement Technique to Model the Kinematics of the Shoulder in Tennis Players", 14<sup>th</sup> Annual Meeting of the International Society for Computer Assisted Orthopaedic Surgery (CAOS), Milan, 2014.
- *In collaboration with the University Hospitals of Geneva and Medacta International SA: Special distinction for the best discussion of the poster* entitled "Sexual Activity after Total Hip Arthroplasty: A Motion Capture Study" ", 15<sup>th</sup> Annual Congress of the European Federation of National Associations of Orthopaedics and Traumatology (EFORT), London, 2014.
- *In collaboration with the University Hospitals of Geneva: ISAKOS Achilles Orthopaedic Sports Medicine Research Award* for the paper entitled "Clinical and MRI Findings in Professional Dancers' Hip: A New Femoro-acetabular Impingement? ", 8<sup>th</sup> Annual Congress of the International Society of Arthroplasty, Knee Surgery and Orthopaedic Sports Medicine (ISAKOS), Rio de Janeiro, 2011.
- *In collaboration with the MIRALab-team and the University Hospitals of Geneva: Eurographics Medical 1<sup>st</sup> Prize* for the paper entitled "Virtual Hip Joint: from Computer Graphics to Computer-Assisted Diagnosis", 30<sup>th</sup> Annual Conference of the European Association for Computer Graphics, Munich, 2009.
- **2009 Walthard Prize** from the University of Geneva. This prize is given to a student conducting with success a sport career and academic studies.

## 10. SOCIETIES

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- International Society for Computer Aided Surgery (ISCAS)
- ACM Siggraph

## 11. OFFICIAL FUNCTIONS

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- **Member of the scientific advisory board, Surgical Devices Innovation Platform, 05.2017**  
Member of the scientific advisory board of the Surgical Devices Innovation Platform, University Hospitals of Geneva.

## 12. TECHNICAL AND SCIENTIFIC FUNCTIONS

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### Member of scientific program committees

- 33<sup>rd</sup> International Conference on Biomechanics in Sports, 2015
- 3D Physiological Human Workshop, 2009
- 3D Physiological Human Workshop, 2008
- Research Networking Workshop 2008 in the context of NCCR CO-ME project

### Reviewer for specialized journals or international conferences

- In orthopedics and sport medicine, such as the American Journal of Sports Medicine, the Journal of Orthopedic Research, etc.
- In biomechanics, such as the Journal of Biomechanics, the Journal of Applied Biomechanics, etc.
- International conferences:
  - International Conference in Sport Biomechanics 2015
  - Medical Imaging Computing and Computer-Assisted Intervention (MICCAI) conference 2011

## 13. INVITED CONFERENCES

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1. Parlons numérique : Métavers et web 3.0: " Virtual Reality: Presence and Immersion for the Metaverse", University of Geneva, Geneva, October 19<sup>th</sup>, 2022
2. Tech4Trust by Trust Valley: Metaverse panel, Online, February 8<sup>th</sup>, 2022
3. ACM Motion in Game (MIG) 2021: "Technics and Challenges in Creating Highly Immersive Experiences in Free-Room Location-Based VR", Online, November 10<sup>th</sup>, 2021
4. Aurea Award 2020: Round Table "From Storytelling to story-living, the Rise of Hyper Reality in LBE", Online, January 22<sup>nd</sup>, 2021
5. VRDays Europe 2019: LBVR panel, Amsterdam, November 13<sup>th</sup>, 2019
6. Geneva International Film Festival 2019: Meet-the-Experts session for VS Tech Day, Geneva, November 6<sup>th</sup>, 2019
7. HUG Innovation Day: "Bientôt soigné par la réalité virtuelle ?", Geneva, October 31<sup>st</sup> 2019
8. Institut National Genevois (ING): "Bientôt soigné par la réalité virtuelle ?", Geneva, September 24<sup>th</sup> 2019
9. The Spot: "Athletes in Motion", Lausanne, May 28<sup>th</sup>, 2019
10. Meyrin Economic Forum : Table ronde "La transformation digitale : la bourse ou la vie de l'entreprise", Geneva, February 8<sup>th</sup>, 2019
11. Health Valley, HPE/Inartis: "Le patient augmenté", Geneva, January 29<sup>th</sup>, 2019
12. Geneva International Film Festival 2018: Round table "L'avenir du musée est-il virtuel", November 7<sup>th</sup>, 2018
13. Forum ArtTech 2018: Round table "From lab to Hollywood", Geneva, October 11<sup>th</sup>, 2018
14. Salon Planète Santé 2018: Round table "La France ou la Suisse ont-ils les moyens de garder la maîtrise des données en santé ?", Geneva, October 5<sup>th</sup>, 2018
15. Health Lab 2018: "Bientôt soignés par la réalité virtuelle", Geneva, October 4<sup>th</sup>, 2018
16. Annual conference of European Society for Surgery of the Shoulder and the Elbow (ESSSE): "Virtual and Augmented Reality in Medicine: New Interactive Tools for the Shoulder Surgeon", Geneva, September 22<sup>nd</sup>, 2018
17. Virtual Switzerland 2018: Round table "Medicine and VR/AR", Zürich, June 14<sup>th</sup>, 2018
18. World VR Forum 2018: Round table "Location-based entertainment", Crans-Montana, June 8<sup>th</sup>, 2018
19. Rencontre du 7e art de Lausanne (r7al) : Round table "Parles avec elles", Lausanne, March 27<sup>th</sup>, 2018
20. Swiss Foundation for Innovation and Training in Surgery (SFITS): "Perspectives of VR/AR in medicine", Geneva, Avril 6<sup>th</sup>, 2018

21. World VR Forum 2017: "From Research to State-of-the-art Entertainment", Crans Montana, May 12<sup>th</sup>, 2017
22. MGM Center of Human Movement Science: "Combining motion capture and medical imaging to improve diagnosis and treatment of Osteoarticular Structures", Mumbai, January 20<sup>th</sup>, 2017
23. National Center for Biological Sciences: "Inside Real Virtuality", Bangalore, January 16<sup>th</sup>, 2017
24. Digital Health 2016: The Role of Digital Health in Early Diagnosis and Prevention, June 24<sup>th</sup>, 2016
25. Cannes Festival 2016: "Beyond Cinema: the Swiss Digital Revolution", Cannes, May 13<sup>th</sup>, 2016
26. Lift 16: "Enter the Anti-Disciplinary Space: A Life in Motion", Geneva, February 11<sup>th</sup>, 2016
27. Sundance Film Festival 2016: Round table "Hacking your senses", Park City, January 23<sup>rd</sup>, 2016
28. GameZFestival 2015: "Real Virtuality Multiplayer", Zürich, October 4<sup>th</sup>, 2015
29. 33<sup>rd</sup> International Conference on Biomechanics in Sports: "Hip and dancing", Round table "Sport and security", University of Poitiers, Poitiers, June 30<sup>th</sup>, 2015
30. 33<sup>rd</sup> International Conference on Biomechanics in Sports: "Patient-specific analysis of shoulder kinematics and impingement in tennis players", University of Poitiers, Poitiers, June 29<sup>th</sup>, 2015
31. Annual Conference of the French Society of Orthopaedic and Trauma Surgery (SOFOT): "Hip and dancing", Round table "Sport and security", Palais des Congrès, Paris, November 15<sup>th</sup>, 2012
32. Prophysics User Meeting: "Motion Capture at Artanim: from 3D Animation to Movement Science", Orthopedic Hospital of Speising, Vienna, September 29<sup>th</sup>, 2012
33. Meeting Agalma - Between art, science et psychoanalysis: "Body and movement: between art, science et technology", Swiss Institute of Roma, September 6<sup>th</sup>, 2012
34. Workshop Centre d'Expression Numérique et Corporelle (CENC) - Les rapports entre l'art numérique et l'art corporel: "Capture de mouvement en temps réel", Fonderie Kugler, March 10<sup>th</sup>, 2012
35. VIEW Conference 2011: "Using Motion Capture to Improve Analysis and Diagnosis of Joint Disorders", Torino, October 18<sup>th</sup>, 2011
36. Annual Congress of the Swiss Orthopedic and Traumatology Society (SSOT): "Extreme Hip Motion in Professional Ballet Dancers", Lausanne, June 24<sup>th</sup>, 2011
37. Lift 11: "From Ballet Dancing to 3D Hip Simulation", Geneva, February 4<sup>th</sup>, 2011
38. European Federation of National Associations of Orthopaedics and Traumatology (EFFORT) meeting: "Professional Dancer's Hip: A Motion Capture Study", HUG, October 22<sup>nd</sup>, 2010
39. European Society of Sports Traumatology, Knee Surgery & Arthroscopy (ESSKA) meeting: "Professional Dancer's Hip: A Motion Capture Study", HUG, June 1<sup>st</sup>, 2010
40. Workshop on Semantic User Descriptions and their Influence on 3D Graphics and VR: "A Semantic-Driven Platform for Medical Applications", EPFL, November 13<sup>th</sup>, 2008

## 14. CONGRESSES

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1. 33<sup>rd</sup> International Conference on Biomechanics in Sports: "Impact of Strengthening Exercises on the Shoulder Joint", University of Poitiers, Poitiers, June 30<sup>th</sup>, 2015
2. Annual Conference of Computer Assisted Radiology and Surgery (CARS) 2015: "A Simplified Technique to Estimate Rotator Cuff Elongation during Complex Shoulder Motion", Barcelona, June 27<sup>th</sup>, 2015
3. Annual Congress of the French-speaking Society on Motion Analysis in Children and Adults (SOFAMEA): "Sexual Activity after Total Hip Arthroplasty (THA)", Geneva, February 6<sup>th</sup>, 2015
4. International Symposium on 3D Analysis of Human Movement: "Analysis of Shoulder Impingement and Stability in Tennis Players", Lausanne, July 16<sup>th</sup>, 2014
5. Annual Conference of the Swiss Orthopedic and Traumatology Society (SSOT): "Post-operative Kinematics Assessment in Patients after Total Hip Arthroplasty: A Pilot Study", St-Gallen, June 27<sup>th</sup>, 2014
6. Annual Conference of the Swiss Orthopedic and Traumatology Society (SSOT): "Risk Assessment of Sexual Activity after Total Hip Arthroplasty (THA)", St-Gallen, June 27<sup>th</sup>, 2014

7. Annual Meeting of the International Society for Computer Assisted Orthopaedic Surgery (CAOS): "A Patient-Specific Measurement Technique to Model the Kinematics of the Shoulder in Tennis Players", Milan, June 20<sup>th</sup>, 2014
8. Annual Congress of the European Federation of National Associations of Orthopaedics and Traumatology (EFORT): "Sexual Activity after Total Hip Arthroplasty: A Motion Capture Study", London, June 5<sup>th</sup>, 2014
9. Annual Conference of the International Society for Technology in Arthroplasty (ISTA): "Using Motion Capture and MRI to Accurately Determine the Hip Range of Motion in Everyday Life", Palm Beach, October 19<sup>th</sup>, 2013
10. Annual Conference of the International Society for Technology in Arthroplasty (ISTA): "Congruence and Impingement in Total Hip Arthroplasty during Everyday Tasks", Palm Beach, October 19<sup>th</sup>, 2013
11. Annual Conference of the Swiss Orthopedic and Traumatology Society (SSOT): "Assessment of Congruence and Impingement of Prosthetic Hips during Everyday Tasks", Lausanne, June 28<sup>th</sup>, 2013
12. Annual Conference of Computer Assisted Radiology and Surgery (CARS) 2010: "An Integrated Platform for Hip Joint Osteoarthritis Analysis: Design, Implementation and Results", Geneva, June 24<sup>th</sup>, 2010
13. Annual Conference of the Orthopaedic Research Society (ORS): "Professional Dancer's Hip: A Motion Capture Study", New Orleans, January 28<sup>th</sup>, 2010
14. Annual Conference of the Swiss Orthopedic and Traumatology Society (SSOT): "Extreme Motion as a Potential Initiator of Hip Osteoarthritis", Geneva, June 25<sup>th</sup>, 2009
15. Eurographics 2009: "Virtual Hip Joint: from Computer Graphics to Computer-Assisted Diagnosis", Munich, April 1<sup>st</sup>, 2009
16. 3D Physiological Human Workshop: "Motion Study of the Hip Joint in Extreme Postures", Zermatt, December 4<sup>th</sup>, 2008
17. International Symposium on 3D Analysis of Human Movement: "Analysis of Extreme Hip Motion in Professional Ballet Dancers", Amsterdam, October 15<sup>th</sup>, 2008
18. Surgetica'2007: "A Semantic-Driven Clinical Examination Platform", Chambéry, September 17<sup>th</sup>, 2007

## 15. WORKSHOPS / EVENTS ORGANISATION

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1. "Le regard de Narcisse: la perception, le miroir et la mort", Le Cénacle, Geneva, November 15<sup>th</sup>, 2013, seminar organizer
2. "Warburg seminar: between neuroscience, art and psychoanalysis", New York Psychoanalytic Institute, New York, October 12-13<sup>th</sup> 2013, seminar organizer
3. "Ferdinand de Saussure: entre neurosciences, psychanalyse et sémiologie", Le Cénacle, Geneva, October 3<sup>rd</sup>, 2013, seminar organizer
4. Workshop: "Rencontre Agalma: Arts, sciences et psychanalyse", Institut Suisse de Rome, September 6-7<sup>th</sup>, 2012, workshop organizer
5. The Freudian Unconscious: Between Neuroscience and Psychoanalysis, EPFL, October 28-29<sup>th</sup>, 2011, workshop organizer
6. Swiss and International Alpine and Nordic University Skiing Championships (U-Games 2010), Vevey, March 6-14<sup>th</sup>, 2010, IT manager
7. 3D Physiological Human Workshop, Zermatt, November 28<sup>th</sup> - December 4<sup>th</sup>, 2009, local committee co-chair
8. Swiss and International Alpine and Nordic University Skiing Championships (U-Games 2009), Vevey, March 11-15<sup>th</sup>, 2009, IT manager
9. 3D Physiological Human Workshop, Zermatt, December 1-4<sup>th</sup>, 2008, local committee co-chair
10. Research Networking Workshop'08 (CO-ME), Zermatt, August 5-7<sup>th</sup>, 2008, workshop chair

## 16. MEDIA

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### Press articles

1. [La folle Nuit de l'Escalade, en réalité immersive, comme si vous y étiez](#), Le Dauphiné Libéré - December 6, 2023
2. [La réalité virtuelle fait de chaque visiteur un personnage de l'Escalade](#), Tribune de Genève - December 6, 2023
3. [Réalité virtuelle: comme une autre dimension](#), Coopération - July 10, 2023
4. [La Forêt mécanique, plongée féerique au coeur de l'horlogerie](#), Le Dauphiné Libéré - April 14, 2023
5. [A la pointe de l'immersion virtuelle](#), Entreprise Romande - March 31, 2023
6. [Championne des mondes virtuels](#), Campus Magazine de l'Université de Genève - March 25, 2023
7. [Une expérience de réalité virtuelle consacrée à l'horlogerie](#), Tribune de Genève - March 23, 2023
8. [Caecilia Charbonnier, sa réussite n'a rien de virtuelle](#), OFF Magazine - September 29, 2022
9. [Des entreprises innovantes fêtées au BFM](#), Tribune de Genève - September 20, 2022
10. [«Il y a beaucoup de similitudes entre le sport et la recherche»](#), PME - September 19, 2022
11. [A Genève, l'avatar est roi](#), Le Matin - July 5, 2022
12. [Dreamscape : entre ciné et parc d'attractions, première européenne à Genève](#), Le Dauphiné Libéré - July 4, 2022
13. [Plongée virtuelle dans le passé ou dans des mondes imaginaires](#), 20 Minutes - July 4, 2022
14. [On a testé le nouveau centre de réalité virtuelle pour vous](#), 24 Heures - July 3, 2022
15. [Un temple de la réalité virtuelle à Genève](#), Le Temps - June 23, 2022
16. [Attractions «immersives» La pionnière de la réalité virtuelle revient à Genève](#), Tribune de Genève - May 27, 2022
17. [Le public va pouvoir se balader dans la Genève de 1850](#), Tribune de Genève - May 23, 2022
18. [Du réel au virtuel, il n'y a qu'un pas](#), Bleu Horizon Magazine CIEPP - April 29, 2022
19. [Chez Artanim, l'art est avatar](#), Le Temps - March 10, 2022
20. [Un eldorado virtuel](#), La Liberté - February 11, 2022
21. [Ces startup suisses qui bâtissent des mondes parallèles](#), Bilan - January 4, 2022
22. [La technologie genevoise qui séduit Hollywood](#), Entreprise Romande - March 26, 2020
23. [Von der Tennishoffnung zum Digital-Crack](#), Blick - September 22, 2019
24. [Voyage époustouflant en réalité virtuelle dans la Genève de 1850](#), Le Matin Dimanche - April 14, 2019
25. [Un quart d'heure dans la révolution fazyste, à Genève](#), Le Temps - April 14, 2019
26. [Vivez 17 minutes dans la Genève de 1850 sans quitter le musée](#), Dauphiné Libéré - April 10, 2019
27. [La Genève de 1850 revit grâce à la réalité virtuelle](#), Tribune de Genève - April 10, 2019
28. [Genève 1850. Un voyage révolutionnaire](#), Vivre à Genève - April 9, 2019
29. [Voyage virtuel dans le temps à la Maison Tavel](#), 20 Minutes - March 19, 2019
30. [Les musées se réinventent](#), Bilan - November 10, 2018
31. [A Lyon, la réalité virtuelle prend le pouvoir](#), Le Monde - September 25, 2018
32. [Digital Shapers 2018](#), Le Temps - October 2018
33. [A Lyon, la réalité virtuelle prend le pouvoir](#), Le Monde - September 25, 2018
34. [Bal casqué](#), Magazine Le Monde - September 22, 2018
35. [Biennale de la danse, la suite](#), Le Tout Lyon - September 20, 2018
36. [On a testé une immersion dans la réalité virtuelle de Gilles Jobin à Venise](#), Tribune de Genève - September 14, 2018
37. [A Lyon, entrez dans la danse connectée](#), Le Monde - September 6, 2018
38. [Quand la science bouscule l'art : la réalité virtuelle entre dans la danse](#), Le Figaro - August 13, 2018



39. [Du jeu vidéo aux autres secteurs de l'économie](#), Agefi - June 11, 2018
40. [L'odyssée pour géants de Gilles Jobin](#), Le Temps - May 1, 2018
41. [VR I, le trip extracorporel qui fait danser Sundance](#), 20 Minutes - January 23, 2018
42. [Des géants virtuels mènent la danse](#), Tribune de Genève - October 10, 2017
43. [La virtualisation du secteur médical, révolution du siècle ?](#), Quotidien salon EPHJ-EPMT-SMT - June 23, 2017
44. [Wenn das Kinoerlebnis zum Trip wird](#), NZZ am Sonntag - May 7, 2017
45. [D'Artanim à Dreamscape Immersive : Des chercheurs genevois sur les chemins de la réussite](#), Fédération des Entreprises Romandes - March 3, 2017
46. [Dreamscape tape dans l'oeil de Spielberg](#), Tribune de Genève - February 20, 2017
47. [Regisseur Spielberg investiert 11 Millionen in Schweizer Jungunternehmen](#), Aargauer Zeitung - February 20, 2017
48. [This is how multiplayer VR of the future will look like](#), The Economic Times - Bangalore - January 18, 2017
49. [A whole new world of virtual reality in the city](#), Times News Network - Bangalore - January 17, 2017
50. [Sneak peek into the real virtual world](#), Deccan Chronicle - Bangalore - January 16, 2017
51. [Plongée, Islande et réalité virtuelle](#), Swissquote Magazine - December 6, 2016
52. [Ces start-up suisses qui inventent le cinéma de demain](#), Bilan - June 16, 2016
53. [Schweizer Flüge in die Kinozukunft](#), Berner Zeitung - May 16, 2016
54. [Das Starsystem wankt](#), NZZ - May 15, 2016
55. [La réalité virtuelle sur la Croisette](#), Tribune de Genève - May 14, 2016
56. [Une réalité de plus en plus virtuelle](#), Tribune de Genève - January 12, 2016
57. [Des Suisses brillent dans la réalité virtuelle](#), Le Temps - January 11, 2016
58. [La réalité virtuelle genevoise honorée à Los Angeles](#), Tribune de Genève - September 28, 2015
59. [Une immersion totale dans un monde virtuel](#), Tribune de Genève - July 4, 2015
60. [En visite chez un faux pharaon](#), Le Temps - April 30, 2015
61. [Radiologie du futur: L'exemple de la danseuse](#), www.santedelafemme.ch (L'illustré) - March 11, 2014
62. [Créer son clone devient possible](#), Le Nouvelliste - November 27, 2014
63. [La technologie 3D au service de la médecine](#), Migros Magazine - January 23, 2012
64. [Sportifs d'élite: se relever après une blessure](#), Migros Magazine - September 26, 2011
65. [Genève accueille un centre d'imagerie 3D unique en Suisse](#), Tribune de Genève - September 16, 2011
66. [Il n'y a pas de limites à la capture du mouvement](#), Tribune de Genève - February 18, 2011
67. ["Adolescente, je revais de petites balles jaunes"](#), Tribune de Genève - July 29, 2009
68. [Deux licences, un master et bientôt un doctorat...](#), Tribune de Genève - March 11, 2009
69. [Sport et carrière: l'art du rebond](#), La Vie Protestante - June 2008
70. [MIRALab pilote l'humain virtuel animé](#), Campus - May 2008
71. [Dossier recherche médicale](#), L'Internat de Paris - December 24, 2007
72. [Diagnostiquer les pathologies articulaires en 3D](#), Le Monde - October 1, 2007
73. [Vous cherchez?](#), Tribune de Genève - June 2007
74. [Mon corps en 3D?](#), Revue de Presse de l'UNIGE - May 2007

#### Articles on Internet

1. [Avec ses simulateurs, l'Espace Ballon a changé de dimension](#), 24 Heures - January 21, 2024
2. [Un simulateur de pilotage de ballon sur le point d'être inauguré à Château-d'Œx](#), La Gruyère - January 15, 2024
3. [A Château-d'Œx, piloter un ballon en gardant les pieds sur terre](#), La Liberté - January 15, 2024

4. [Réel de tdg online](#), Tribune de Genève - December 8, 2023
5. [Dreamscape lance sa nouvelle expérience consacrée à l'Escalade](#), Bilan - December 7, 2023
6. [La Fondation Artanim a développé une nouvelle aventure VR : La Nuit de l'Escalade](#), Cominmag.ch - December 6, 2023
7. [La Nuit de l'Escalade en réalité virtuelle : Artanim émerveille et réinvente la tradition](#), Synergix - December 5, 2023
8. [Dans leur Forêt mécanique, Dreamscape et Audemars Piguet font des étincelles](#), Genève Les Portes - March 21, 2023
9. [Embarquement pour un voyage stupéfiant](#), Le Frontalier - March 6, 2023
10. [Caecilia Charbonnier, Dreamscape: «Nous ne sommes pas près de voir un métavers standardisé»](#), ICT Journal - September 9, 2022
11. [Les entreprises investissent le marché du jeu vidéo éducatif](#), Bilan - September 6, 2022
12. [Le premier centre de réalité virtuelle immersive d'Europe inauguré à Genève](#), Bilan - September 3, 2022
13. [On a testé la réalité virtuelle de Dreamscape !](#), Genève Secrète - August 8, 2022
14. [Dreamscape, en immersion dans le futur \(et dans la Genève de 1850\)](#), Genève Les Portes - July 11, 2022
15. [Dreamscape, la révolution de la réalité virtuelle](#), Genève Secrète - July 4, 2022
16. [Dreamscape réinvente le divertissement grâce à la VR](#), cominmag.ch - July 4, 2022
17. [Dreamscape ouvre à Genève son premier centre européen de réalité virtuelle immersive](#), ICT Journal - May 24, 2022
18. [Dreamscape : Nouveau centre de réalité virtuelle immersive à Genève](#), loisirs.ch - May 24, 2022
19. [Un fleuron genevois pour la réalité virtuelle d'Artanim](#), Startupticker - May 23, 2022
20. [Dreamscape va ouvrir un centre de réalité virtuelle immersive à Genève](#), cominmag.ch - May 23, 2022
21. [Geneva VR-tech immerses itself in US training programmes](#), Geneva Solutions - October 13, 2020
22. [Avec Dreamscape, j'étais réellement Indiana Croft](#), ETR - February 29, 2020
23. [Hello, Columbus: Spielberg-Backed Dreamscape VR Center Opens Friday In Ohio](#), Forbes - February 24, 2020
24. [Dreamworks Dragon Flight Academy Shows Promise For Location-Based VR To Reach New Heights](#), VR Scout - December 19, 2019
25. [Dreamscape in Dubai: VR goes next level](#), Gulf News - December 19, 2019
26. [Majid Al Futtaim, Dreamscape open VR location at Mall of the Emirates](#), blooloop - December 19, 2019
27. [Majid Al Futtaim teams up with Dreamscape to take VR to a new level](#), TechRadar.pro - December 19, 2019
28. [Majid Al Futtaim makes Dreamscape come true in UAE](#), Khaleej Times - December 16, 2019
29. [Cartographers of the mirror worlds](#), Heidi.news - September 26, 2019
30. [La médecine maintenant virtuelle, augmentée et capturée grâce à Artanim](#), Agefi - August 26, 2019
31. [Le voyage dans le temps genevois affiche complet](#), Agefi - July 30, 2019
32. ["Genève 1850 un voyage révolutionnaire": une expérience immersive en réalité virtuelle proposée par les Musées d'art et d'histoire de Genève](#), Club Innovation & Culture France - April 10, 2019
33. [Invitation à un voyage révolutionnaire en 1850](#), 20 Minutes - April 10, 2019
34. [Must-see VR tour of 1850s Geneva](#), Things to do in Geneva - April 10, 2019
35. [Haptische VR-Experience "Geneva 1850" - Special](#), games.ch - April 9, 2019
36. [La danse se met en mode 2.0](#), 24 Heures - January 31, 2019
37. [Neuf innovations technologiques marqueront la santé du futur](#), Agefi - January 29, 2019
38. [Virtual reality start-ups bet people will leave their homes for a VR experience that's a cross between a movie theater and theme park](#), CNBC - December 16, 2018
39. [Swim with whales at a mall as Dreamscape Immersive opens its first VR storefront](#), Los Angeles Daily News - December 14, 2018
40. [Spielberg-Backed Dreamscape Opens First Permanent VR Storefront](#), Forbes - December 14, 2018

41. [How Wevr & Dreamscape Immersive Reinvented 'The Blu' for Location-Based VR](#), Variety - December 14, 2018
42. [Dreamscape Lets You Walk Through The Screen](#), VRroom - December 2018
43. [Danse et réalité virtuelle à Venise](#), Cinébulletin - July 31, 2018
44. [Danza e partecipazione. Gilles Jobin e la realtà virtuale immersiva](#), Artribune - May 3, 2018
45. [Wie ein Tor in eine andere Welt](#), ThurgauKultur - March 8, 2018
46. [D'ici 5 ou 10 ans, la réalité virtuelle sera omniprésente dans notre vie](#), Le Matin Dimanche - February 11, 2018
47. [Dreamscape Immersive's Alien Zoo takes guests to an interstellar Jurassic Park](#), The Verge - February 23, 2018
48. [Enter the Dreamscape: Location-Based VR Gets a New Player](#), Wired - February 20, 2018
49. [Location Based VR Revs Up New Year](#), Forbes - February 19, 2018
50. [Dreamscape's Alien Zoo Creates A Sense Of Awe And Wonder](#), UploadVR - February 9, 2018
51. [Virtual Reality Experience Debuts at Westfield Century City From Dreamscape Startup](#), The Hollywood Reporter - February 7, 2018
52. [Virtual Reality Gets Social: At Sundance, Proof that the Future of VR is Shared Experiences](#), IndieWire - February 1, 2018
53. [Swiss startups stir up public excitement](#), startupticker.ch - January 26, 2018
54. [Dreamscape Raises \\$30 Million For Location-based VR](#), UploadVR - December 14, 2017
55. [Dreamscape Immersive Partners With Nickelodeon for Location-Based VR Experience](#), Variety - December 13, 2017,
56. [Dreamscape VR startup ups Series B to \\$30 million, will make VR content with Nickelodeon](#), L.A. Biz - December 13, 2017
57. [HoloMed: Mixed reality anatomical motion capture for healthcare](#), HealthiAR - October 12, 2017
58. [Un deal pour booster la réalité virtuelle d'Artanim](#), startupticker.ch - October 6, 2017
59. [Hololens Provides New Tool For Sports Medicine](#), VR Focus - October 3, 2017
60. [Plongée dans le mouvement](#), Le Courrier - October 3, 2017
61. [Quand la danse fait appel à la réalité virtuelle](#), Bilan - October 1, 2017
62. [World's Largest Cinema Chain, AMC, Leads \\$30M Investment to Bring VR to Movie Theaters](#), Road to VR - September 30, 2017
63. [Virtual Reality Installations to Start Arriving at AMC Movie Theaters Next Year](#), Wall Street Journal - September 27, 2017
64. [AMC Theaters Buys Into VR With Dreamscape Immersive Deal](#), VR Scout - September 27, 2017
65. [Hoping to bring VR to the multiplex, AMC joins Spielberg in backing Culver City startup](#), Los Angeles Times - September 26, 2017
66. [Coming Soon to AMC Theaters: Virtual Reality Experiences](#), New York Times - September 26, 2017
67. [Hollywood and AMC theaters are betting on VR with Dreamscape Immersive](#), The Verge - September 26, 2017
68. [AMC Strikes \\$20 Million Pact With Dreamscape Immersive for 6 VR Centers, Content Production](#), Variety - September 26, 2017
69. [VR I une expérience artistique](#), Meyrin Ensemble - September 19, 2017
70. [Dreamscape bouleverse nos perceptions](#), Meyrin Ensemble - September 19, 2017
71. [Réelle virtualité](#), Platinn Magazine - September 14, 2017
72. [Hollywood studios dip their toes in virtual reality](#), The Economist - July 6, 2017
73. [Une invention suisse séduit Spielberg](#), Le Matin Dimanche - June 1, 2017
74. [5 Reasons Virtual Reality Will Survive and Thrive](#), Creators - May 19, 2017
75. [Dreamscape's Big Dreams for Immersive VR](#), Forbes - March 28, 2017

76. [Investissement du troisième type pour une start-up genevoise](#), ICT Journal - February 23, 2017
77. [Dreamscape : quand Hollywood s'associe à Artanim pour amener la réalité virtuelle dans les grands centres commerciaux](#), Enter the Rift - February 17, 2017
78. [VR Venture Dreamscape Immersive to Create Immersive Multiplex in Los Angeles](#), VR Focus - February 14, 2017
79. [Dreamscape Immersive Wants to Bring Virtual Reality Multiplex to Los Angeles](#), Variety - February 13, 2017
80. [Startup Backed by Spielberg and Studios Seeks to Create VR Experiences for Malls](#), Wall Street Journal - February 13, 2017
81. [Opening the doors of perception](#), The Hindu - January 24, 2017
82. [This VR experience plugged with motion capture will shape your reality](#), Stuff - January 20, 2017
83. [Act in your own avatar inside a virtual world at Mahalaxmi](#), mid-day.com - January 20, 2017
84. [Q&A with Artanim](#), The Standard magazine, Vicon Motion Systems Ltd - December 26, 2016
85. [Cannes Film Festival 2016: Our pick of the best VR films and experiences](#), Wareable - May 18, 2016
86. [Real Virtuality : une expérience de VR pas comme les autres](#), Les Numériques - March 30, 2016
87. [On a testé la réalité virtuelle de nouvelle génération à Laval Virtual](#), 01net - March 24, 2016
88. [Les startups suisses se lancent dans la réalité virtuelle](#), Bilan - March 1, 2016
89. [Swiss Startups Delving Into Virtual Reality](#), Techcrunch - February 22, 2016
90. [Robert Redford séduit par une start-up genevoise](#), Bilan - February 1, 2016
91. [Sundance 2016: Nine new VR pieces you need to know](#), Los Angeles Times - January 30, 2016
92. [Virtual Reality at Sundance Offers a Glimpse Into the Future](#), Paste Magazine - January 27, 2016
93. [This is the Future of VR Escape Rooms](#), VR Scout - January 27, 2016
94. [Pillow Talk with Sylvain Chagué and Caecilia Charbonnier](#), Adobe Pillow Talk - January 25, 2016
95. [The VR arcade of the future will look something like this](#), Engadget - January 24, 2016
96. [Artanim the Swiss VR Experience](#), swissnex - January 22, 2016
97. [Real Virtuality: "The Void" aus der Schweiz](#), Rodo - January 22, 2016
98. [Die Zeit des Bastelns ist vorbei](#), 20 Minuten - January 11, 2016
99. [How to use Virtual Reality in Tourism](#), Gamification in tourism (blog) - January 4, 2016
100. [Watch Two Real People Pass A Torch In A Virtual Reality World](#), Popular Science - August 31, 2015
101. [VR 3.0: Artanim's Real Virtuality](#), <http://johnwburge.com> - August 29, 2015
102. [From tradeshow to ancient pharaoh's tomb](#), Red Lorry Yellow Lorry - August 27, 2015
103. [Somebody else's body](#), Ken Perlin's blog - August 26, 2015
104. [Playing with Real Virtuality at swissnex SF](#), rangerrick.com - August 25, 2015
105. [Multi-user Wireless Virtual Reality System: Real Virtuality](#), Technabob - August 24, 2015
106. [Multi-user Wireless Virtual Reality System: Real Virtuality](#), GA2 - August 24, 2015
107. [Hands-on: Real Virtuality Multiplayer VR demo](#), Tested.com - August 21, 2015
108. [Vicon Vantage Mocap Cameras Will Make U.S. Debut at SIGGRAPH](#), StudioDaily - July 29, 2015
109. [Real Virtuality will be at swissnex](#), VR Focus - July 24, 2015
110. [Real Virtuality gives glimpse at VR's multiplayer future](#), wired.co.uk - July 14, 2015
111. [Real Virtuality shows us what multiplayer VR might look like](#), Engadget - July 14, 2015
112. [SIGGRAPH Finalist Releases Gameplay Footage](#), VR Focus - July 14, 2015
113. [Real Virtuality : L'Oculus Rift poussé à son paroxysme](#), jeuxvideo.com - July 13, 2015
114. [SIGGRAPH 2015 AR/VR Contest Finalist Shows Multiplayer Widescale Mixed Reality System](#), Road To VR - July 13, 2015
115. [Real Virtuality : démonstration du mode Coopération](#), Enter the Rift - July 12, 2015

116. [Real Virtuality Selected for SIGGRAPH 2015 VR Competition](#), VR Focus - June 27, 2015
117. [Vidéo : ce dispositif de réalité augmentée fait de vous un Indiana Jones des musées](#), Konbini - April 30, 2015
118. [Kenzan et Artanim ajoutent le tactile à la réalité virtuelle](#), Bilan - April 29, 2015
119. [A la lueur d'une torche la real virtuality](#), Enter The Rift - April 24, 2015
120. [Widescale Tracking and Real Props Make for an Even More Immersive VR Experience](#), Road To VR - April 23, 2015
121. [Kenzan : projet mêlant réalité virtuelle et motion capture](#), 3DVF - April 23, 2015
122. [Walking Through a Motion Capture Tomb With Oculus](#), VR Scout - April 21, 2015
123. [Des athlètes du SAS clonés virtuellement](#), SAS magazin - November 11, 2014
124. [Sex after Hip Implants: A Guide Based on Motion Capture](#), The Standard magazine, Vicon Motion Systems Ltd - July 1, 2014
125. [An affordable full body studio grade 3D scanner](#), hackaday.com - March 7, 2014
126. [Hip Replacement Safe Sex](#), Glory Surgery - November 28, 2013
127. [Motion capture used to assess best sexual positions after hip surgery](#), wired.co.uk - November 26, 2013
128. [Sex after hip transplants - scientists reveal new guidelines](#), Reuters TV - November 18, 2013
129. [Swiss researchers look at how dangerous sex is for hip replacements](#), news.com.au - October 26, 2013
130. [Sex Positions That Won't Break Your Artificial Hip, According To Science](#), Popular Science - October 16, 2013
131. [Sex Positions after Hip Surgery](#), about.com - October 14, 2013
132. [An orthopedic guide to the Kama-Sutra](#), Ronan Kavanagh's Blog - September 29, 2013
133. [Les mouvements de votre hanche \(en titane\) durant l'activité sexuelle](#), gurumed.org - September 24, 2013
134. [New Hip, Safe Sex Motion study](#), Improbable Research - September 23, 2013

#### **TV/Radio programs**

1. [Entretien avec Christophe Moinat, directeur artistique Espace Ballon](#), Couleurs locales / RTS - January 22, 2024
2. [À Château-d'Œx \(VD\), les ballons et montgolfières enchantent le ciel](#), TV News / RTS - January 20, 2024
3. [Vivez la Nuit de l'Escalade en réalité virtuelle](#), Couleurs locales / RTS - December 8, 2023
4. [Au coeur de la bataille de l'Escalade grâce à la réalité virtuelle](#), Radio Lac - December 7, 2023
5. [Plongée en réalité virtuelle dans la nuit de l'Escalade](#), Léman Bleu - December 6, 2023
6. [Voyager dans le temps à travers un casque? - Part 2](#), Parlons Economie / Radio Lac - June 15, 2023
7. [Voyager dans le temps à travers un casque? - Part 1](#), Parlons Economie / Radio Lac - June 15, 2023
8. [L'invitée de 52 minutes](#), 52 Minutes / RTS - March 24, 2023
9. [L'invité d'Epiphane – 23/03/2023 – Caecilia Charbonnier & Stefano Maddalena](#), Radio Cité - March 23, 2023
10. [Quand la haute horlogerie rencontre la réalité virtuelle](#), Léman Bleu - March 23, 2023
11. [ABE vous emmène à la découverte des métavers](#), ABE / RTS - February 14, 2023
12. [Dreamscape propose une balade à Genève en 1850 grâce à la réalité augmentée](#), TV News / RTS - July 10, 2022
13. [Au coeur des Rues Basses, un centre de réalité virtuelle voit le jour](#), Radio Lac - July 4, 2022
14. [Que sont-ils devenus? A l'occasion de la 30ème émission, retour sur les activités de Jean Gallay, Artanim et IEM](#), Le Monde de Demain / Léman Bleu - January 31, 2022
15. [Bienvenue dans le monde des métavers](#), CQFD / RTS la 1ère - January 10, 2022
16. [Le quatrième opus de Matrix est sorti](#), TV News / RTS - December 20, 2021
17. [Chirurgie : poser une prothèse de hanche](#), Le Mag Santé / France 5 - December 7, 2021
18. [Technologies virtuelles](#), Le Monde de demain / Léman Bleu - December 3, 2019

19. [Visitez Genève au milieu du XIXe](#), CQFD / RTS la 1ère - May 28, 2019
20. [Immersion dans la Genève de 1850](#), TV News / RTS - April 22, 2019
21. [Plongée virtuelle dans l'histoire de Genève](#), Radio Lac - April 10, 2019
22. [Le Journal de la Culture](#), Le Journal de la Culture / Léman Bleu - April 12, 2019
23. [Réalité virtuelle à la Maison Tavel, Caecilia Charbonnier, Responsable du projet Genève](#), Radio Lac - April 12, 2019
24. [La révolution culturelle numérique est en marche !](#), La Puce à l'Oreille / RTS - March 21, 2019
25. ["VR-i" la pièce en réalité virtuelle du Genevois Gilles Jobin est à voir aux Journées de Soleure](#), TV News / RTS - January 26, 2019
26. [La Suisse excelle aux Etats-Unis dans le monde de la réalité virtuelle. L'exemple d'une entreprise genevoise](#), TV News / RTS - December 15, 2018
27. [En toute vérité, Caecilia Charbonnier](#), L'interview de Zelda / Radio Lac - November 14, 2018
28. [La danse en réalité virtuelle](#), Arte - September 17, 2018
29. [Biennale de la danse 2018 Spectacles en VR](#), France 3 Auvergne-Rhône-Alpes - September 14, 2018
30. [Comment faire l'amour avec une prothèse de hanche ?](#), Allodocteurs.fr / France 5 - December 4, 2017
31. [Virtual Reality: Technologische Revolution oder nur Spielerei?](#), Einstein / SRF - November 16, 2017
32. [Digitale Choreografie - Virtual Reality macht Tanz zum Erlebnis](#), KulturPlatz / SRF - October 11, 2017
33. [Pour la première fois Viviane Fontaine rencontre Caecilia Charbonnier](#), Premier rendez-vous / RTS la 1ère - June 27, 2017
34. [Notre invitée: Caecilia Charbonnier](#), TTC / RTS - March 6, 2017
35. [Une start-up genevoise de réalité virtuelle à l'assaut d'Hollywood](#), TV News / RTS - February 14, 2017
36. [La réalité virtuelle sous le sapin](#), 3D Eco / Léman Bleu - December 26, 2016
37. [La réalité virtuelle](#), CQFD / RTS la 1ère - August 2, 2016
38. [Laval Virtual: le boum des lunettes 3D](#), France 3 - March 24, 2016
39. [Virtuelle Réalité](#), Néophiles / RTS la 1ère - February 12, 2016
40. [Real Virtuality on Daily Planet](#), Discovery Channel - February 3, 2016
41. [Le Festival Tous Ecrans permet d'expérimenter la réalité virtuelle](#), TV News / RTS - November 13, 2015
42. [Elle est belle la réalité virtuelle](#), Nouvo / RTS - September 11, 2015
43. [Nouvo: Genève accueille une conférence mondiale dédiée aux musées](#), TV News & Nouvo / RTS - April 21, 2015
44. [Les enfants malades du sport intensif, 36.9°](#) / RTS – April 15, 2015
45. [Sport et Santé - La modélisation 3D des articulations](#), Léman Bleu - February 28, 2014
46. [Sport et Santé - L'épaule du joueur de tennis](#), Léman Bleu - January 23, 2014
47. [Des chevaux de lumière, du dessin électrique et le kamasutra de la hanche](#), Nouvo / RTS - December 6, 2013
48. [Sex after hip transplants - scientists reveal new guidelines](#), Reuters TV - November 18, 2013
49. [Interview at VIEW Conference 2011](#), Web TV OndeQuadre - October 2011
50. [La 3D révolutionne la médecine](#), Nouvo / TSR - July 2010
51. [3D Anatomical Human](#), TV news / TSR - November 2006

## 16. LANGUAGES

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- French (mother tongue), English (written and oral fluently), German (excellent knowledge, written and oral), Spanish (excellent knowledge, written and oral)
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Geneva, the 14<sup>th</sup> of June 2024



## PUBLICATIONS LIST

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### Original articles

1. M'Rad Y, [Charbonnier C](#), Elias de Oliveira M, Guillemin PC, Crowe LA, Kössler T, Poletti P-A, Boudabbous S, Ricoeur A, Salomir R, Lorton O. *Computer-Aided Intra-Operatory Positioning of an MRgHIFU Applicator dedicated to Abdominal Thermal Therapy using Particle Swarm Optimization*, IEEE Open J Eng Med Biol, IEEE, 2644-1276:1-11, 2024 **(IF: 5.8)**
2. Brandariz R, [Charbonnier C](#), Culebras A, Lädermann A, Cunningham G. *The role of bone morphology of the greater tuberosity and lateral acromion on subacromial space during scaption: a three-dimensional dynamic simulation analysis*, BMC Musculoskelet Disord, 24:888, 2023 **(IF: 2.3)**
3. Llobera J, [Charbonnier C](#). *Physics-based character animation and human motor control*, Phys Life Rev, 46:190-219, 2023 **(IF: 11.7)**
4. Llobera J, Jacquat V, Calabrese C, [Charbonnier C](#). *Playing the mirror game in virtual reality with an autonomous character*, Sci Rep, 12:21329, 2022 **(IF: 4.99)**
5. Lorton O, Guillemin PC, M'Rad Y, Peloso A, Boudabbous S, [Charbonnier C](#), Holman R, Crowe LA, Gui L, Poletti P-A, Ricoeur A, Terraz S, Salomir R. *A Novel Concept of a Phased-Array HIFU Transducer Optimized for MR-Guided Hepatic Ablation: Embodiment and First In-Vivo Studies*, Front Oncol, 30(12):899440, 2022 **(IF: 6.24)**
6. Öztürk M, Paulin E, [Charbonnier C](#), Dupuis-Lozeron E, Holzer N. *Three-Dimensional Reconstruction and Virtual Reposition of Fragments Compared to Two Dimensional Measurement of Midshaft Clavicle Fracture Shortening*, BMC Musculoskelet Disord, 23:216, 2022 **(IF: 2.36)**
7. Galvan Debarba H, Montagud M, Chagué S, Lajara J, Lacosta I, Fernandez Langa S, [Charbonnier C](#). *Content Format and Quality of Experience in Virtual Reality*, Multimed Tools Appl, 2022 **(IF: 2.75)**
8. Galvan Debarba H, Chagué S, [Charbonnier C](#). *On the Plausibility of Virtual Body Animation Features in Virtual Reality*, IEEE Trans Vis Comput Graph, 28(4):1880-1893, 2022 **(IF: 3.78)**
9. Lädermann A, Athwal GS, Bothorel H, Collin P, Mazzolari A, Raiss P, [Charbonnier C](#). *Scapulothoracic Alignment Alterations in Patients with Walch Type B Osteoarthritis: An In Vivo Dynamic Analysis and Prospective Comparative Study*, J Clin Med, 10(1):66, 2021 **(IF: 2.04)**
10. Chatzitofis A, Saroglou L, Boutis P, Drakoulis P, Zioulis N, Subramanyam S, Kevelham B, [Charbonnier C](#), Cesar P, Zarpalas D, Kollias S, Daras P. *HUMAN4D: A Human-Centric Multimodal Dataset for Motions & Immersive Media*, IEEE Access, 8:176241-176262, 2020 **(IF: 3.74)**
11. Cunningham G, [Charbonnier C](#), Lädermann A, Chagué S, Sonnabend DH. *Shoulder Motion Analysis During Codman Pendulum Exercises*, Arthrosc, Sports Med, Rehabil, 2(4):e333-e339, 2020 **(IF: 1.64)**
12. Lädermann A, Chagué S, Preissmann D, Kolo FC, Zbinden O, Kevelham B, Bothorel H, [Charbonnier C](#). *Acromioplasty during repair of rotator cuff tears removes only half of the impinging acromial bone*, JSES Open Access, 4(3):592-600, 2020 **(IF: 2.28)**
13. Lädermann A, Chagué S, Preissmann D, Kolo FC, Rime O, Kevelham B, Bothorel H, [Charbonnier C](#). *Guided versus Freehand acromioplasty during rotator cuff repair. A randomized prospective study*, Orthop Traumatol Surg Res, 106(4):651-659, 2020 **(IF: 1.57)**
14. Lädermann A, Chagué S, Preissmann D, Kolo FC, Rime O, Kevelham B, Bothorel H, [Charbonnier C](#). *L'acromioplastie guidée comparée à l'acromioplastie à main levée dans la réparation de la coiffe des rotateurs. Une étude prospective randomisée*, Revue de chirurgie orthopédique et traumatologique, 106(4):372-380, 2020 **(IF: 1.57)**
15. [Charbonnier C](#), Duthon VB, Chagué S, Kolo FC, Ménétrey J. *In Vivo Static and Dynamic Lengthening Measurements of the Posterior Cruciate Ligament at High Knee Flexion Angles*, Int J CARS, 15(3):555-564, 2020 **(IF: 2.15)**
16. Lädermann A, Tay E, Collin P, Piotton S, Chiu JCH, Michelet A, [Charbonnier C](#). *Effect of critical shoulder angle, glenoid lateralization and humeral inclination on range of motion in reverse shoulder arthroplasty*, Bone Joint Res, 8:378-386, 2019 **(IF: 2.36)**
17. Elias de Oliveira M, Galvan Debarba H, Lädermann A, Chagué S, [Charbonnier C](#). *A Hand-Eye Calibration Method for Augmented Reality Applied to Computer-Assisted Orthopedic Surgery*. Int J Med Robot Comput Assist Surg, 15(2):e1969, 2019 **(IF: 1.472)**



18. Lädermann A, Cunningham G, Chagué S, Charbonnier C. *Sexual Activities as Risk Factors of Rotator Cuff Lesions: A Prospective Cohort Study*, *Sex Disabil*, 36(4):305-311, 2018 **(IF: 1.12)**
19. Lädermann A, Tirefort J, Zanchi D, Haller S, Charbonnier C, Cunningham G. *Shoulder Apprehension: a Multifactorial Approach*, *EFORT Open Rev*, 3:550-557, 2018 **(IF: 4.77)**
20. Charbonnier C, Chagué S, Kevelham B, Preissmann D, Kolo FC, Rime O, Lädermann A. *ArthroPlanner: A Surgical Planning Solution for Acromioplasty*, *Int J CARS*, 13(12):2009-2019, 2018 **(IF: 1.86)**
21. Charbonnier C, Lädermann A, Kevelham B, Chagué S, Hoffmeyer P, Holzer N. *Shoulder Strengthening Exercises Adapted to Specific Shoulder Pathologies Can Be Selected Using New Simulation Techniques: A Pilot Study*, *Int J CARS*, 13(2):321-330, 2018 **(IF: 1.86)**
22. Mert E, Psikuta A, Arevalo M, Charbonnier C, Luible-Bär C, Bueno MA, Rossi R. *A validation methodology and application of 3D garment simulation software to determine the distribution of air layers in garments during walking measurement*, *Measurement*, 117:153-164, 2018 **(IF: 2.35)**
23. Charbonnier C, Chagué S, Kolo FC, Duthon VB, Menetrey J. *Multi-body Optimization with Subject-Specific Knee Models: Performance at High Knee Flexion Angles*, *Comput Meth Biomech Biomed Eng*, 20(14):1571-1579, 2017 **(IF: 1.90)**
24. Luible C, Charbonnier C. *Fashioning Movement: a new approach to Fashion Design*, In *Unfrozen - Design Research Today*, Edited by Swiss Design Network, Triest Verlag, 2017 **(IF: 0)**
25. Kolo FC, Schwitzguébel AJP, Kourhani A, Denard PJ, Charbonnier C, Lädermann A. *Fosbury Flop Tear of the Rotator Cuff: Diagnostic Assessment with Magnetic Resonance Arthrography*, *Br J Radiol*, 90(1077):20170146, 2017 **(IF: 2.05)**
26. Cereatti A, Bonci T, Akbarshahi M, Aminian K, Barré A, Begon M, Benoit DL, Charbonnier C, Dal Maso F, Fantozzi S, Lin C-C, Lu T-W, Pandy MG, Stagni R, van den Bogert AJ, Camomilla V. *Standardization proposal of soft tissue artefact description for data sharing in human motion measurements*, *J Biomech*, 62:5-13, 2017 **(IF: 2.43)**
27. Preissmann D, Charbonnier C, Chagué S, Antonietti JP, Llobera J, Ansermet F, Magistretti PJ. *A motion capture study to measure the feeling of synchrony in romantic couples and in professional musicians*, *Front Psychol*, 7:1673, 2016 **(IF: 2.46)**
28. Lädermann A, Denard PJ, Tirefort J, Kolo FC, Chagué S, Cunningham G, Charbonnier C. *Does Surgery for Instability of the Shoulder Truly Stabilize the Glenohumeral Joint? A Prospective Comparative Cohort Study*, *Medicine*, 95(31):e4369, 2016 **(IF: 2.13)**
29. Llobera J, Charbonnier C, Chagué S, Preissmann D, Antonietti JP, Ansermet F, Magistretti P. *The Subjective Sensation of Synchrony: An Experimental Study*, *PLoS ONE*, 11(2):e0147008, 2016 **(IF: 3.23)**
30. Jaquet D, Bonnefoy-Mazure A, Armand S, Charbonnier C, Ziltener JL, Kayser B. *Range of motion and energy cost of locomotion of the late medieval armoured fighter: confronting the medieval technical literature with modern movement analysis*, *Hist Meth*, 49(3):1-18, 2016 **(IF: 0.72)**
31. Lädermann A, Chagué S, Kolo FC, Charbonnier C. *Kinematics of the Shoulder Joint in Tennis Players*, *J Sci Med Sport*, 19(1):56-63, 2016 **(IF: 3.19)**
32. Christofilopoulos P, Charbonnier C. *CORR Insights®: High Rates of Interest in Sex in Patients With Hip Arthritis*, *Clin Orthop Relat Res*, 374(2):300-301, 2016 **(IF: 2.77)**
33. Lädermann A, Gueorguiev B, Charbonnier C, Stimec BV, Fasel JHD, Zderic I, Hagen J, Walch G. *Scapular Notching on Kinematic Simulated Range of Motion after Reverse Shoulder Arthroplasty is not the Result of Impingement in Adduction*, *Medicine*, 94(38):e1615, 2015 **(IF: 5.72)**
34. Lädermann A, Charbonnier C. *Kinematics of the Shoulder Joint*, *Leading Opinions*, 2015 **(IF: 0)**
35. Schmid J, Chênes C, Chagué S, Hoffmeyer P, Christofilopoulos P, Bernardoni M, Charbonnier C. *MyHip: Supporting Planning and Surgical Guidance for a Better Total Hip Arthroplasty: A Pilot Study*, *Int J CARS*, 10(10):1547-1556, 2015 **(IF: 1.71)**
36. Charbonnier C, Chagué S, Kolo FC, Lädermann A. *Shoulder Motion During Tennis Serve: Dynamic and Radiological Evaluation Based on Motion Capture and Magnetic Resonance Imaging*, *Int J CARS*, 10(8):1289-1297, 2015 **(IF: 1.71)**
37. Charbonnier C, Chagué S, Schmid J, Kolo FC, Bernardoni M, Christofilopoulos P. *Analysis of Hip Range of Motion in Everyday Life: A Pilot Study*, *Hip Int*, 25(1):82-90, 2015 **(IF: 0.76)**

38. Charbonnier C, Chagué S, Kolo FC, Chow JCK, Lädermann A. *A Patient-Specific Measurement Technique to Model Shoulder Joint Kinematics*, *Orthop Traumatol Surg Res*, 100(7):715-719, 2014 **(IF: 1.26)**
39. Charbonnier C, Chagué S, Kolo FC, Chow JCK, Lädermann A. *Évaluation personnalisée de l'épaule par modélisation de la cinétique articulaire*, *Revue de chirurgie orthopédique et traumatologique*, 100(7):521, 2014 **(IF: 0)**
40. Charbonnier C, Chagué S, Ponzoni M, Bernardoni M, Hoffmeyer P, Christofilopoulos P, *Sexual Activity after Total Hip Arthroplasty: A Motion Capture Study*, *J Arthroplasty*, 29(3):640-647, 2014 **(IF: 2.67)**
41. Duthon VB, Charbonnier C, Kolo FC, Magnenat-Thalmann N, Becker CD, Bouvet C, Coppens E, Hoffmeyer P, Menetrey J, *Correlation of Clinical and MRI Findings in Hips of Elite Female Ballet Dancers*, *Arthroscopy: The Journal of Arthroscopic and Related Surgery*, 29(3):411-419, 2013 **(IF: 3.21)**
42. Kolo FC, Charbonnier C, Pfirrmann CWA, Duc SR, Lubbeke A, Duthon VB, Magnenat-Thalmann N, Hoffmeyer P, Menetrey J, Becker CD, *Extreme Hip Motion in Professional Ballet Dancers: Dynamic and Morphologic Evaluation Based on MRI*, *Skeletal Radiol*, 42(5):689-698, 2013 **(IF: 1.51)**
43. Charbonnier C, Kolo FC, Duthon VB, Magnenat-Thalmann N, Becker CD, Hoffmeyer P, Menetrey J, *Assessment of Congruence and Impingement of the Hip Joint in Professional Ballet Dancers: A Motion Capture Study*, *Am J Sports Med*, 39(3):557-566, 2011 **(IF: 4.36)**
44. Charbonnier C, Magnenat-Thalmann N, Becker CD, Hoffmeyer P, Menetrey J, *An Integrated Platform for Hip Joint Osteoarthritis Analysis: Design, Implementation and Results*, *Int J CARS*, 5(4):351-358, 2010 **(IF: 1.71)**
45. Charbonnier C, Assassi L, Volino P, Magnenat-Thalmann N, *Motion Study of the Hip Joint in Extreme Postures*, *Vis Comput*, 25(9):873-882, 2009 **(IF: 0.96)**
46. Assassi L, Charbonnier C, Schmid J, Volino P, Magnenat-Thalmann N, *From MRI to Anatomical Simulation of the Hip Joint*, *Computer Animation and Virtual Worlds Journal, Special Issue on Physiological Human*, 20(1):53-66, 2009 **(IF: 0.46)**

#### Book chapters

1. Lädermann A, Bonnevalle N, Charbonnier C, *The Shoulder in Tennis: The Different Types of Impingement & Instability*, In *Shoulder Concepts 2016 – Arthroscopy, Arthroplasty & Fractures*, Edited by P. Boileau Sauramps Medical Montpellier.

#### Theses

1. Charbonnier C, *Combining Medical Imaging and Motion Capture for the Dynamic Analysis of Personalized Osteoarticular Structures*, Privat-Doctent Thesis, University of Geneva, 2017
2. Charbonnier C, *Extreme Hip Movements Based on Optical Motion Capture*, PhD Thesis, University of Geneva, 2010
3. Charbonnier C, Lo C, *Virtual Mirror: A real-time motion capture application for virtual-try-on*, M.Sc. Thesis, EPFL, 2006

#### International peer reviewed conference proceedings

1. Mancuso M, Charbonnier C. *Technical evaluation of the fidelity of the HTC Vive for upper limb tracking*, 42nd International Conference on Biomechanics in Sports, Salzburg, Austria, July 2024
2. Collin P, Charbonnier C, Chagué S, Lädermann A. *La réparation capsulaire est-elle importante pour le micromouvement résiduel après Latarjet. Essai prospectif contrôlé en externe.*, 17ème Congrès national de médecine et traumatologie du sport (SFTS), Beffroi de Montrouge, France, June 2024
3. Brandariz R, Charbonnier C, Culebras A, Lädermann A, Cunningham G. *The role of bone morphology of the greater tuberosity and lateral acromion on subacromial space during scaption: a three-dimensional dynamic simulation analysis*, 24th EFORT Congress, Vienna, Austria, May 2023
4. Llobera J, Charbonnier C. *Physics-based character animation for Virtual Reality*, Open Access Tools and Libraries for Virtual Reality, IEEE VR Workshop, 2022 Best Open Source Tool Award, March 2022
5. Llobera J, Booth J, Charbonnier C. *Physics-based character animation controllers for videogame and virtual reality production*, 14th ACM SIGGRAPH Conference on Motion, Interaction and Games, November 2021
6. Llobera J, Booth J, Charbonnier C. *New Techniques on Interactive Character Animation*, ACM SIGGRAPH 2021 Courses, ACM, New York, NY, 16:1-6, USA, August 2021

7. Llobera J, [Charbonnier C](#). *Interactive Characters for Virtual Reality Stories*, ACM International Conference on Interactive Media Experiences (IMX 2021), ACM, New York, NY, USA, pp.322-325, June 2021
8. Revilla A, Zamarvide S, Lacosta I, Perez F, Lajara J, Kevelham B, Juillard V, Rochat B, Drocco M, Devaud N, Barbeau O, [Charbonnier C](#), de Lange P, Li J, Mei Y, Lawicka K, Jansen J, Reimat N, Subramanyam S, Cesar P, *A Collaborative VR Murder Mystery using Photorealistic User Representations*, Proc. IEEE Conf. on Virtual Reality and 3D User Interfaces (VRW 2021), IEEE, pp. 766, March 2021
9. Elias de Oliveira M, Galvan Debarba H, Lädermann A, Chagué S, [Charbonnier C](#). *Réalité augmentée en chirurgie orthopédique. Mythe ou réalité ?*, Congrès de la Société Francophone d'Arthroscopie 2018, Paris, France, Revue de chirurgie orthopédique et traumatologique, 104(8):S110, December 2018
10. Galvan Debarba H, Elias de Oliveira M, Lädermann A, Chagué S, [Charbonnier C](#). *Augmented Reality Visualization of Joint Movements for Rehabilitation and Sports Medicine*, 20th Symposium on Virtual and Augmented Reality (SVR), Foz Do Iguaçu, Brazil, October 2018
11. Mert E, Psikuta A, Joshi A, Arevalo M, [Charbonnier C](#), Luible-Bär C, Annaheim S, Rossi R. *The distribution of air gap thickness and the contact area during Alpine skiing*, Proc. of 9th Int. Conf. on 3D Body Scanning Technologies, Lugano, Switzerland, October 2018
12. Elias de Oliveira M, Galvan Debarba H, Lädermann A, Chagué S, [Charbonnier C](#). *Development of a Hand-Eye Calibration Method for Augmented Reality Applied to Computer-Assisted Orthopedic Surgery*, 32nd International Congress of Computer Assisted Radiology and Surgery, Heidelberg, Germany, Int J CARS, June 2018
13. Galvan Debarba H, Elias de Oliveira M, Lädermann A, Chagué S, [Charbonnier C](#). *Augmented Reality Visualization of Joint Movements for Physical Examination and Rehabilitation*, Proc. 2018 IEEE Virtual Reality, IEEE Comput. Soc, March 2018
14. Galvan Debarba H, Elias de Oliveira M, Lädermann A, Chagué S, [Charbonnier C](#). *Tracking a Consumer HMD with a Third Party Motion Capture System*, Proc. 2018 IEEE Virtual Reality, IEEE Comput. Soc, March 2018
15. Lädermann A, Kolo FC, Chagué S, [Charbonnier C](#). *Is acromioplasty planification useful? A prospective randomized trial*, Congrès de la Société Francophone d'Arthroscopie 2017, Paris, France, Revue de chirurgie orthopédique et traumatologique, 103(8):S268, December 2017
16. [Charbonnier C](#), Kolo FC, Lädermann A. *Acromioplasty Planification: A Randomized Prospective Study*, 27th Annual Congress of the European Shoulder and Elbow Society (SECEC), Berlin, Germany, September 2017
17. Oztürk M, Paulin E, Cunningham G, [Charbonnier C](#), Dupuis Lozeron E, Holzer N. *Indication for Clavicle Fracture Osteosynthesis Based on Shortening: How to Measure it?*, 27th Annual Congress of the European Shoulder and Elbow Society (SECEC), Berlin, Germany, September 2017
18. Cunningham G, [Charbonnier C](#), Chagué S, Lädermann A, Sonnabend DH. *Are Pendular Shoulder Exercises Worthwhile?*, 27th Annual Congress of the European Shoulder and Elbow Society (SECEC), Berlin, Germany, September 2017
19. Cunningham G, [Charbonnier C](#), Chagué S, Lädermann A, Sonnabend DH. *Are Pendular Shoulder Exercises Worthwhile?*, 18th EFORT Congress, Vienna, Austria, June 2017.
20. Mert E, Psikuta A, Arevalo M, [Charbonnier C](#), Luible C, Bueno MA, Rossi RM. *Quantitative validation of 3D garment simulation software for determination of air gap thickness in lower body garments*, IOP Conf. Series: Materials Science and Engineering, 254, May 2017
21. Cunningham G, [Charbonnier C](#), Chagué S, Lädermann A, Sonnabend DH, *Are Pendular Shoulder Exercises Worthwhile?*, 2017 AAOS Meeting, San Diego, California, March 2017
22. [Charbonnier C](#), Chagué S, Lädermann A, Holzer N. *Évaluation des effets potentiellement délétères d'exercices de l'épaule en fonction des pathologies rencontrées*, Congrès de la Société Francophone d'Arthroscopie 2016, Paris, France, Revue de chirurgie orthopédique et traumatologique, 102(8):S307, December 2016
23. Lädermann A, Denard PJ, Tirefort J, Chagué S, Cunningham G, [Charbonnier C](#). *Est-ce que les stabilisations d'épaule stabilisent les épaules ?*, Congrès de la Société Francophone d'Arthroscopie 2016, Paris, France, Revue de chirurgie orthopédique et traumatologique, 102(8):S284-S285, December 2016
24. Cunningham G, [Charbonnier C](#), Chagué S, Lädermann A, Sonnabend DH. *Est-ce que les exercices pendulaires selon Codman sont utiles ?*, Congrès de la Société Francophone d'Arthroscopie 2016, Paris, France, Revue de chirurgie orthopédique et traumatologique, 102(8):S296, December 2016

25. Charbonnier C, Chagué S, Kevelham B, Kolo FC, Lädermann A. *ArthroPlanner: A Surgical Planning Solution for Acromioplasty*, 30th International Congress of Computer Assisted Radiology and Surgery, Heidelberg, Germany, Int J CARS, June 2016
26. Chagué S, Charbonnier C. *Real Virtuality: A Multi-User Immersive Platform Connecting Real and Virtual Worlds*, VRIC 2016 Virtual Reality International Conference - Laval Virtual, Laval, France, ACM New York, NY, USA, March 2016
27. Chagué S, Charbonnier C. *Digital Cloning for an Increased Feeling of Presence in Collaborative Virtual Reality Environments*, Proc. of 6th Int. Conf. on 3D Body Scanning Technologies, Lugano, Switzerland, October 2015
28. Charbonnier C, Menetrey J. *Dancing as a Potential Initiator of Early Hip Osteoarthritis*, 33rd International Conference on Biomechanics in Sports, Poitiers, France, June 2015
29. Charbonnier C, Kevelham B, Chagué S, Lädermann A, Ziltener JL, Hoffmeyer P, Holzer N. *Impact of Shoulder Strengthening Exercises on the Shoulder Joint*, 33<sup>rd</sup> International Conference on Biomechanics in Sports, Poitiers, France, June 2015
30. Charbonnier C, Kevelham B, Chagué S, Lädermann A, Ziltener JL, Hoffmeyer P, Holzer N. *A Simplified Technique To Estimate Rotator Cuff Elongation During Complex Shoulder Motion*, 29th International Congress of Computer Assisted Radiology and Surgery, Barcelona, Spain, Int J CARS, June 2015
31. Holzer N, Chagué S, Lädermann A, Ziltener JL, Hoffmeyer P, Charbonnier C. *Impact of Shoulder Strengthening Exercises on Subacromial Space Height and on Articular Cartilages and Labrum Compression Using Motion Capture Analysis*, 16th EFORT Congress, Prague, Czech Republic, June 2015
32. Charbonnier C, Chagué S, Ponzoni M, Bernardoni M, Hoffmeyer P, Christofilopoulos P. *Activités sexuelles après arthroplastie totale de hanche (PTH)*, XIV congrès de la SOFAMEA, Geneva, Switzerland, February 2015
33. Charbonnier C, Chagué S, Kolo FC, Lädermann A. *Analysis of Shoulder Impingement and Stability in Tennis Players*, Proceedings of the 13th International Symposium on 3D Analysis of Human Movement, Lausanne, Switzerland, July 2014
34. Renaud A, Charbonnier C, Chagué S. *3DinMotion - A mocap based interface for real time visualisation and sonification of multi-user interactions*, New Interfaces for Musical Expression (NIME) Conference, London, UK, June 2014
35. Schmid J, Chênes C, Chagué S, Hoffmeyer P, Christofilopoulos P, Bernardoni M, Charbonnier C. *Computer-assisted Total Hip Arthroplasty: from Pre-operative Planning to Post-operative Assessment*, 14th Annual Meeting of the International Society for Computer Assisted Orthopaedic Surgery (CAOS), Milan, Italy, June 2014
36. Charbonnier C, Chagué S, Kolo FC, Lädermann A. *A Patient-Specific Measurement Technique to Model the Kinematics of the Shoulder in Tennis Players*, 14th Annual Meeting of the International Society for Computer Assisted Orthopaedic Surgery (CAOS), Milan, Italy, June 2014
37. Charbonnier C, Chagué S, Ponzoni M, Bernardoni M, Hoffmeyer P, Christofilopoulos P. *Sexual Activity after Total Hip Arthroplasty: A Motion Capture Study*, 15th EFORT Congress, London, UK, June 2014
38. Charbonnier C, Chagué S, Ponzoni M, Bernardoni M, Hoffmeyer P, Christofilopoulos P. *Congruence and Impingement in Total Hip Arthroplasty during Everyday Tasks*, 26th Annual Congress of the International Society of Technology in Arthroplasty, Miami, Florida, Bone & Joint J, 95-B(Supp 34):27, October 2013 **(IF : 2.73)**
39. Christofilopoulos P, Chagué S, Schmid J, Bartolone P, Hoffmeyer P, Charbonnier C. *Using Motion Capture and MRI to Accurately Determine the Hip Range of Motion in Everyday Life*, 26th Annual Congress of the International Society of Technology in Arthroplasty, Miami, Florida, Bone & Joint J, 95-B(Supp 34):29, October 2013 **(IF : 2.73)**
40. Lädermann A, Chagué S, Kolo FC, Charbonnier C. *Kinematic Modeling of the Shoulder in Tennis Players*, 24th Annual Congress of the European Shoulder and Elbow Society (SECEC), Madrid, Spain, September 2013
41. Duthon VB, Charbonnier C, Kolo FC, Magnenat-Thalmann N, Becker CD, Bouvet C, Coppens E, Hoffmeyer P, Menetrey J. *Correlation of Clinical and MRI Findings in Professional Dancers' Hip: A New Femoro-acetabular Impingement?*, Arthroscopy: The Journal of Arthroscopic and Related Surgery, 28(6):e53, Suppl. 2, 2012 **(IF: 3.21)**

42. Duthon VB, Kolo FC, Charbonnier C, Duc SR, Pfirrmann CWA, Magnenat-Thalmann N, Becker CD, Hoffmeyer P, Menetrey J, *Correlation of Clinical and MRI Findings in Professional Dancers' Hip: A New Femoroacetabular Impingement?*, 8th Biennial ISAKOS Congress, Rio De Janeiro, Brazil, May 2011
43. Charbonnier C, Kolo FC, Duthon VB, Magnenat-Thalmann N, Becker CD, Hoffmeyer P, Menetrey J, *Professional Dancer's Hip: A Motion Capture Study*, Trans Orthop Res Soc, New Orleans, Louisiana, March 2010
44. Duthon VB, Kolo FC, Charbonnier C, Magnenat-Thalmann N, Duc SR, Pfirrmann CWA, Becker CD, Hoffmeyer P, Menetrey J, *Correlation of Clinical and MRI Findings in Professional Dancers' Hip: A New Femoroacetabular Impingement?*, Trans Orthop Res Soc, New Orleans, Louisiana, March 2010
45. Charbonnier C, Schmid J, Kolo FC, Magnenat-Thalmann N, Becker CD, Hoffmeyer P, *Virtual Hip Joint: from Computer Graphics to Computer-Assisted Diagnosis*, Eurographics 2009 - First Medical Prize, Eurographics Association, Munich, Germany, pp. 1-4, April 2009
46. Charbonnier C, Lyard E, Magnenat-Thalmann N, *Analysis of Extreme Hip Motion in Professional Ballet Dancers*, Proceedings of the 10th International Symposium on 3D Analysis of Human Movement, Amsterdam, Netherlands, October 2008
47. Magnenat-Thalmann N, Charbonnier C, Schmid J, *Multimedia Application to the Simulation of Human Musculoskeletal System: A Visual Lower Limb Model from Multimodal Captured Data*, Proceedings of the IEEE International Workshop on Multimedia Signal Processing, Cairns, Australia, pp. 520-525, October 2008
48. Charbonnier C, Gilles B, Magnenat-Thalmann N, *A Semantic-Driven Clinical Examination Platform*, In *Surgetica'2007, Computer-Aided Medical Interventions: Tools and Applications*, Chambéry, France, pp. 183-189, September 2007

#### National peer reviewed conference proceedings

1. Culebras A, Brandariz R, Lädermann A, Charbonnier C, Cunningham G. *The role of bone morphology of the greater tuberosity and lateral acromion on subacromial space during scaption: a three-dimensional dynamic simulation analysis*, Swiss Med Wkly, 153(Suppl. 269):7S-8S, 2023 **(IF: 4.2)**
2. Lädermann A, Charbonnier C. *Scapulothoracic Alignment in B Glenoids. An in Vivo Dynamic Analysis*, Swiss Med Wkly, 244(Suppl. 150):3S, 2020 **(IF: 1.82)**
3. Charbonnier C, Tay E, Collin P, Piotton S, Chiu JCH, Michelet A, Lädermann A. *Effect of critical shoulder angle, glenoid lateralization and humeral inclination on ROM in reverse shoulder arthroplasty*, Swiss Med Wkly, 149(Suppl. 236):2S, 2019 **(IF: 1.82)**
4. Oztürk M, Holzer N, Cunningham G, Paulin E, Dupuis Lozeron E, Charbonnier C. *Indication for Clavicle Fracture Osteosynthesis Based on Shortening: How to Measure it?*, Swiss Med Wkly, 147(Suppl. 223):28S, 2017 **(IF: 1.82)**
5. Cunningham G, Charbonnier C, Chagué S, Lädermann A, Sonnabend DH. *Are Pendular Shoulder Exercises Worthwhile?*, Swiss Med Wkly, 147(Suppl. 223):41S, 2017 **(IF: 1.82)**
6. Luible C, Charbonnier C. *Fashioning Movement: a new approach to Fashion Design*, Unfrozen Symposium, 1st SDN Design Research Winter Summit, Giessbachwork, Giessbach, Switzerland, January 2016
7. Holzer N, Chagué S, Lädermann A, Ziltener JL, Hoffmeyer P, Charbonnier C. *High differences in subacromial space height and gleno-humeral compression according to shoulder muscle exercise type*, Swiss Med Wkly, Suppl. 210, 145:32S, 2015 **(IF: 2.09)**
8. Charbonnier C, Chagué S, Chênes C, Hoffmeyer P, Christofilopoulos P, Bernardoni M, Schmid J. *Post-operative Kinematics Assessment in Patients after Total Hip Arthroplasty: A Pilot Study*, Swiss Med Wkly, Suppl. 204, 144:37S, 2014 **(IF: 2.09)**
9. Charbonnier C, Chagué S, Ponzoni M, Bernardoni M, Hoffmeyer P, Christofilopoulos P. *Risk Assessment of Sexual Activity after Total Hip Arthroplasty (THA)*, Swiss Med Wkly, Suppl. 204, 144:35S, 2014 **(IF : 2.09)**
10. Lädermann A, Chagué S, Kolo FC, Charbonnier C. *Kinematic of the Shoulder Joints in Professional Tennis Players*, Swiss Med Wkly, Suppl. 204, 144:14S, 2014 **(IF: 2.09)**
11. Schmid J, Chênes C, Chagué S, Christofilopoulos P, Charbonnier C, Bernardoni M, *MyHip: Personalized Planning and Surgical Guidance in Total Hip Arthroplasty*, Swiss Congress for Health Professions (SCHP), Bern, Switzerland, March 2014

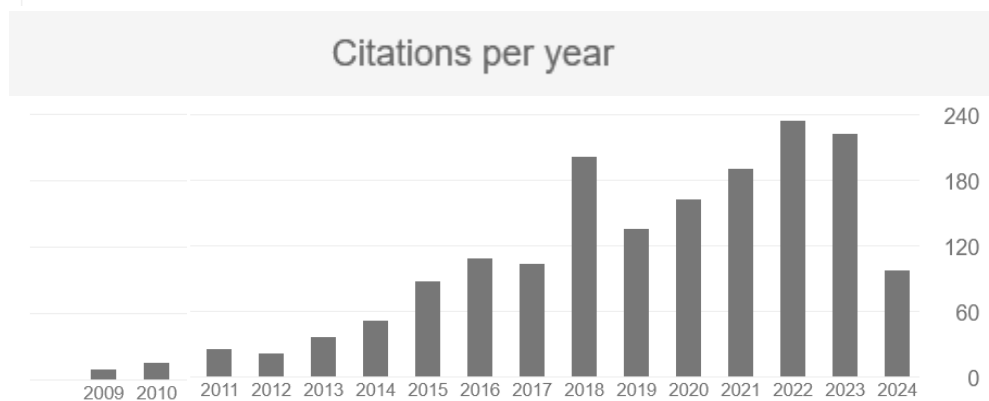
12. [Charbonnier C](#), Chagué S, Ponzoni M, Bernardoni M, Hoffmeyer P, Christofilopoulos P, *Assessment of Congruence and Impingement of Prosthetic Hips during Everyday Tasks*, Swiss Med Wkly, Suppl. 198, 143:32S-33S, 2013 (IF: 2.09)
13. Christofilopoulos P, Chagué S, Schmid J, Hoffmeyer P, [Charbonnier C](#), *Hip Range of Motion in Everyday Life*, Swiss Med Wkly, Suppl. 198, 143:27S, 2013 (IF: 2.09)
14. Christofilopoulos P, Chagué S, Schmid J, Bartolone P, Hoffmeyer P, [Charbonnier C](#), *Accuracy Assessment of Hip Clinical Exam*, Swiss Med Wkly, Suppl. 198, 143:27S, 2013 (IF: 2.09)
15. [Charbonnier C](#), Kolo FC, Duc SR, Pfirrmann CWA, Menetrey J, Duthon VB, Magnenat-Thalmann N, Becker CD, Hoffmeyer P, *Extreme Motion as a Potential Initiator of Hip Osteoarthritis*, Swiss Med Wkly, Suppl. 173, 139(23-24):18S, 2009 (IF: 2.09)
16. Duthon VB, Menetrey J, Kolo FC, [Charbonnier C](#), Duc SR, Pfirrmann CWA, Magnenat-Thalmann N, Becker CD, Hoffmeyer P, *Professional Dancers' Hip: Correlation of Clinical and MRI Findings*, Swiss Med Wkly, Suppl. 173, 139(23-24):18S, 2009 (IF: 2.09)

#### Other articles

1. [Charbonnier C](#), Trouche V, *Real Virtuality: Perspectives Offered by the Combination of Virtual Reality Headsets and motion Capture*, White Paper, August 2015
2. [Charbonnier C](#), *Des athlètes du SAS clonés virtuellement pour étudier le confort de vêtements de sport*, SAS Magazin, 2014
3. [Charbonnier C](#), *Sex after Hip Implants: A Guide Based on Motion Capture*, The Standard magazine, Vicon Motion Systems Ltd, 2014

## CITATION REPORT

Cited by	VIEW ALL	
	All	Since 2019
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i10-index	37	29



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**DATE AND SIGNATURE**

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Geneva, the 14<sup>th</sup> of June 2024

A handwritten signature in black ink, appearing to be 'L. U.' followed by a horizontal stroke.