10th 3DBODY.TECH Conference & Expo

Lugano, Switzerland · 22-23 October 2019

Program of

3DBODY.TECH 2019

10th International Conference and Exhibition on 3D Body Scanning and Processing Technologies

Lugano, Switzerland, 22-23 Oct. 2019

www.3dbody.tech

Organizer

Hometrica Consulting - Dr. Nicola D'Apuzzo
Ascona, Switzerland

hometrica consulting

3DBODY.TECH 2019 - PROGRAM

www.3dbody.tech

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Program Outline

3DBODY.TECH 2019
10th International Conference and Exhibition on 3D Body Scanning and Processing Technologies
Lugano, Switzerland, 22-23 October 2019, www.3dbody.tech

Time	Tuesday 22 October 2019			Wednesday 23 October 2019		
08:00	Registration		Exhibition Setup	Registration		Exhibition Setup
09:00			Exhibition	Technical Session 7 **3D Hand & Foot Scanning**	Technical Session 8 **3D Body Technology for Apparel II**	Exhibition
10:00	**Opening Session**			Coffee Break		
11:00	Coffee Break			Technical Session 9 **3D Body Technology for Social Sciences**	Technical Session 10 **3D Body Scanning Systems**	
12:00	Technical Session 1 **3D Body Scanning in Medicine**	Technical Session 2 **3D & 4D Body Scanning**		Lunch Break		
13:00	Lunch Break					
14:00				Technical Session 11 **3D Body Technology for Health & Sport**	Technical Session 12 **3D Body Technology for Apparel III**	
15:00	Technical Session 3 **3D Body Scanning Assessment & Use**	Technical Session 4 **3D Body Technology for Apparel I**				
16:00	Coffee Break			Coffee Break		Exhibition Breakdown
17:00	Technical Session 5 **Digital Anthropometry & Ergonomics**	Technical Session 6 **3D Body Scanning & Measurement**		Technical Session 13 **3D Body Technology for Apparel IV**		
18:00				**Closing Session**		
19:00	**Welcome Cocktail**					

Icons / Symbols

GOLD Presentation/talk from **GOLD** Exhibitor & Sponsor

SILVER Presentation/talk from **SILVER** Exhibitor & Sponsor

AI Presentation/talk related to **AI / ML** Artificial Intelligence & Machine Learning

Presentation/talk related to **4D & DYNAMIC** scanning, measurement, simulation, visualization

Presentation/talk related to **MOBILE APP** solutions

3D **Live demonstration** of 3D/4D equipment / solutions

3DBODY.TECH 2019 - CONFERENCE PROGRAM

Tuesday 22nd October 2019

08:00-09:30 **Registration** – Welcome Desk

09:30-10:40 **Opening Session** – Room B1

Session Chair: Dr Nicola D'APUZZO
Hometrica Consulting, Switzerland

09:30 Welcome Speech from the Conference Director
Nicola D'APUZZO
Hometrica Consulting, Switzerland

09:50 World Premieres, Product Launches and Announcements from Exhibitors at 3DBODY.TECH 2019

GOLD Size Stream @ Home
Dr David BRUNER, CTO, Size Stream, USA

SILVER Cost Effective, High Accuracy Depth Camera - Acusense - 3D Face Scanner - Desktop 3D Scanner
Dr Tao YANG, R&D Director, Chishine, China

GOLD I Want to Break Free: 4D Live in London
Chris LANE, CEO, 3dMD, UK/USA

SILVER Digital Air's Camera Control System for 3D and 4D Photogrammetry
Dayton TAYLOR, Founder/CEO, Digital Air, USA

GOLD Premiere of MOVE 4D - A New Innovative Approach for 3D Motion Full Body Scanning
David GARRIDO, Head of Innovation in Biomechanical Assessment, IBV, Spain

SILVER This is the botscan NEO - Highly Precise and Colorfast 3D Data in Just 0.01 Second
Lisa FRANK, Shareholder, botspot, Germany

GOLD QuantaCorp - Two Pictures 3D Body Scan Platform Introducing SizePass
Alexander VANDEVELDE, CEO, QuantaCorp, Belgium

SILVER IEEE Industry Connections Group for 3D Body Processing
Rudi SCHUBERT, Director New Initiatives, IEEE-SA, USA

GOLD Space Vision 3D Body Scanning Solutions
Hideto KAMESHIMA, R&D Manager, Space Vision, Japan

SILVER ImFusion One-Shot Reconstruction System
Dr Alexander LADIKOS, CTO, ImFusion, Germany

GOLD New 3D Body Scanner AVAone and Results of Size NorthAmerica
Michael STÖHR, CEO, Avalution, Germany

SILVER meepl - An Instant Body Reconstruction Platform for Apparel
Ferdinand METZLER, CEO & Founder, meepl, Switzerland

SILVER VitalFit: Soft Avatars for Realistic Fit Testing
Prof Dinesh K. PAI, CEO, Vital Mechanics Research, Canada

10:40-11:20 **Coffee Break** – Foyer

11:20-13:10 **Technical Session 1: 3D Body Scanning in Medicine I** – Room C

Session Chair: Dr Fatima MERCHANT
The University of Houston, USA

11:20 Automatic Low-Cost Tool for Head 3D Modelling and Cranial Deformation Analysis in Infants
Inés BARBERO-GARCÍA 1, José Luis LERMA 1, Pablo MIRANDA 2
1 Photogrammetry and Laser Scanning Research Group, Universitat Politècnica de València, Valencia, Spain;
2 Hospital Universitari i Politècnic La Fe, Valencia, Spain

11:42 Shapeshift 3D Repair™ - A Fully Automated and Unsupervised Cloud API for the Reliable Reconstruction of Raw 3D Surface Scans Data
Patrick LAURIN, Daniel BÉLAND, Jonathan BORDUAS
Technologies ShapeShift 3D Inc., Montreal QC, Canada

12:04 ManoX: Making 3D Hand Scanning Easy and Scalable
SILVER
Pieter SMAKMAN
Manometric B.V., Delft, The Netherlands

12:26 Additive Manufacturing in Medical Applications needs Special Approaches - Practical Examples
Antonius KÖSTER
Antonius Köster GmbH & Co KG, Meschede, Germany

12:48 Interactive Visualization of Breast Shape for Breast Surgery
Urmila SAMPATHKUMAR 1, Audrey CHEONG 1, Gregory P. REECE 2, Mary Catherine BORDES 2, Summer E. HANSON 2, Mia K. MARKEY 3,2, Fatima A. MERCHANT 1,3
1 University of Houston, TX, USA; 2 The University of Texas MD Anderson Cancer Center, TX, USA;
3 The University of Texas at Austin, TX, USA

11:20-13:20 **Technical Session 2: 3D & 4D Body Scanning** – Room B1

Session Chair: Prof Dr Yordan KYOSEV
TU Dresden, Germany

11:20 MOVE 4D: Accurate High-Speed 3D Body Models in Motion
Eduardo PARRILLA, Alfredo BALLESTER, Francisco PARRA,
Ana V. RUESCAS, Jordi URIEL, David GARRIDO, Sandra ALEMANY
Instituto de Biomecánica de Valencia, Universidad Politécnica de Valencia, Valencia, Spain

11:40 Man vs. Machine - Measuring People for the Apparel Industry
Warren WRIGHT
Size Stream LLC, Cary, NC, USA

12:00 Full Body Scanner and Virtual Scanner - The Right 3D Solution for Apparel Companies and their Customers
Tim GÜNZEL
Avalution GmbH, Kaiserslautern, Germany

12:20 Novel 3D Body Scanner and Humanmetrics Service
Hideto KAMESHIMA
Spacevision Inc., Tokyo, Japan

12:40 The Capabilities of 4D Body Scanning: in Whole and in Part
Chris LANE
3dMD Ltd., London / Atlanta GA, UK / USA

13:00 Web3D Consortium's ISO standards (X3D and HAnim) - Overview, Insight, Applications
Anita HAVELE 1, Chris LANE 2
1 Web3D Consortium, Mountain View CA, USA; 2 3dMD Ltd., London / Atlanta GA, UK / USA

13:10-14:40 **Lunch Break** – Foyer

14:40-16:30 **Technical Session 3: : 3D Body Scanning Assessment & Use** – Room C

Session Chair: Ales JURCA
Volumental AB, Sweden

14:40 From 3D Body Scan to Finished Product Without Pushing the Button
Yannick FRANCKEN, Stijn LIGOT
3D Body Cloud, Brasschaat, Belgium

15:02 HOLOFIL - 3D Visualization Front End for Body Scanners
Mrunal GAWADE
HOLOFIL, Amsterdam, The Netherlands

15:24 Reliability of Measuring Morphology of the Paediatric Foot Using the Artec Eva Hand Held Scanner
Matyas VARGA 1, Stewart C. MORRISON 1, Carina PRICE 2
1 School of Health Sciences, University of Brighton, Eastbourne, UK; 2 School of Health and Society, University of Salford, UK

14:40-16:30 **Technical Session 4: 3D Body Technology for Apparel I** – Room B1

Session Chair: Prof Sybille KRZYWINSKI
TU Dresden, Germany

14:40 The Missing Link Between 3D Body Scan and Apparel Production
Marc C. CLOSE
Bespokify Pte Ltd., Singapore

15:02 That's the Way from 3D Body Scan to Individual Customized Clothing
Stefan GERTSCH
Gertsch Consulting & Mode Visions, Zofingen, Switzerland

15:24 The Suitability of Body Scanning Measurement in Pattern Drafting Methods
Maryam AHMED, Tarfah ALRUSHAYDAN, Simeon GILL, Steven G. HAYES, Kristina BRUBACHER
The University of Manchester, Manchester, UK #41

15:46 Evaluating Soft and Hard Avatars for Virtual Fit Testing
Yuan TIAN 1,2, Ye FAN 1,2, Dinesh K. PAI 1,2
1 Vital Mechanics Research, Canada; 2 University of British Columbia, Vancouver BC, Canada

16:08 Development of a Kinematic Human Model for Clothing and High Performance Garments
Doudou ZHANG, Sybille KRZYWINSKI
TU Dresden, Institute of Textile Machinery and High Performance Material Technology, Germany

16:30-17:00 **Coffee Break** – Foyer

17:00-18:50 **Technical Session 5: Digital Anthropometry & Ergonomics** – Room C

Session Chair: Dr Junfeng PENG
Decathlon SportsLab, France

17:00 Localizing Anthropometric Landmarks Using 3-D Surface Features
Chang SHU 1, Pengcheng XI 1, Allan KEEFE 2
1 National Research Council of Canada, Ottawa, Canada; 2 Defence Research and Development Canada, Toronto, Canada

17:22 ARSynth : Robust Real-Time Human Torso Tracking from Synthetically Trained Deep Neural Networks
Prashanth CHANDRAN 1, Endri DIBRA 2, Ben HUBER 3
1 Computer Graphics Lab, ETH Zurich, Zurich, Switzerland; 2 Arbrea Labs AG, Zurich, Switzerland

17:44 Digital People - Avatars in Virtual Product Development
Michael STÖHR
Avalution GmbH, Kaiserslautern, Germany

18:06 Selection of Protective Helmets Based on the Scanning System
Konstantin KARAVAEV, Maxim TRUPHANOV
Elasizer srl, Milan, Italy

17:00-18:50 **Technical Session 6: 3D Body Scanning & Measurement** – Room B1

Session Chair: Dr Agnes PSIKUTA
Empa, Switzerland

17:00 meepl - An Instant 3D Body Reconstruction Platform for Apparel
Ferdinand METZLER
meepl, Zurich, Switzerland

17:22 Fully Anonymised Human Measure Acquisition Process by Mobile for Identity Protection
Alessandro CANEPA
i-Deal S.r.l., Biella, Italy

17:44 Smartphone-Based Precision 3D Body Scanning Applications in Apparel and Footwear Markets
Jeff CHEN, Andy EOW, Chelsea LOMBARDI, Cameron ARMSTRONG
NetVirta Inc., Boston MA, USA

18:06 Connecting the Dots: Platform Approach to 3D Body Scanning and Multi-Service Usage of the Digital-Self
Dobrin MIREVSKI, Krasimir TONCHEV
Imagifinity Ltd., Sofia, Bulgaria

18:28 Real Avatar Production - Raspberry Pi Zero W Based Low-Cost Full Body 3D Scan System Kit for VRM Format
Yukihiro IWAYAMA
EIDEN Inc., Tokyo, Japan

18:50-21:00 **Welcome Cocktail**

Wednesday 23rd October 2019

08:00-08:30 **Registration** – Welcome Desk

08:30-10:20 **Technical Session 7: 3D Hand & Foot Scanning** – Room C

Session Chair: Dr Chang SHU
National Research Council of Canada

08:30 Comparison of Glove Specifications, 3D Hand Scans, and Sizing of Sports Gloves for Athletes
Linsey A. GRIFFIN 1, Susan SOKOLOWSKI 2, Elisheva SAVVATEEV 1, Arif-Ul-Anwar BHUYAN 1, Nathan ROESE 2
1 University of Minnesota, St. Paul, MN, USA; 2 University of Oregon, Portland OR, USA

08:52 Development of a 3D Grading Method for Shoe Lasts Based on Scanned 3D Foot Data
Jana SIEGMUND, Huangmei LIN, Sybille KRZYWINSKI, Monika RICHTER, Kathrin SCHÄFER
1 TU Dresden, Institute of Textile Machinery and High Performance Material Technology, Germany;
2 Prüf- und Forschungsinstitut Pirmasens e. V., Pirmasens, Germany

09:14 MySize.Shoes: Using Small Data and Machine Learning Based Individual Fit Profile to Enable Industrial Made to Measure Approach in Footwear
Andrey GOLUB
ELSE Corp Srl, Milan, Italy

09:36 "My Bauer" - Showcasing the Use of 3D Foot Scans in the Mass Manufacture of Custom Skates
Ales JURCA 1, Raymond BOISSONNEAULT 2
1 Volumental, Stockholm, Sweden; 2 Bauer Hockey, Blainville QC, Canada

09:58 Capture Every Foot's Unique Form
Antonin G. BÉRUBÉ
Bodyform3D, Montréal QC, Canada

08:30-10:20 **Technical Session 8: 3D Body Technology for Apparel II** – Room B1

Session Chair: Dr Simeon GILL
The University of Manchester, UK

08:30 Development of a Jeans Sizing System for Young Black Pear-Shaped South African Women Using a 3D Body Scanner
Phumza SOKHETYE
Durban University of Technology, South Africa

08:52 Sizolution: Reconstructing Customers' Body Parameters Online. Methods and Comparison of Accuracy
Vahe TAAMAZYAN
Sizolution GmbH, Berlin, Germany

09:14 CLO3D Fashion Design Software - A Perspective for Virtual Thermal Modelling of Garments
Agnes PSIKUTA, Marie-Helene JÄGER, Annette MARK, Harry MCGOWAN, Ankit JOSHI, Marin KINK
Empa, Swiss Federal Laboratories for Materials Science and Technology, St. Gallen, Switzerland

09:36 Analysis of Thermal Comfort of Clothing with Different Textile Material through Thermal Simulation
Muhammad AWAIS, Ellen WENDT, Sybille KRZYWINSKI
TU Dresden, Institute of Textile Machinery and High-Performance Material Technology, Germany

09:58 Evaluation of the Accuracy and Suitability of Low-Cost RGB-D Sensor for Automated Air Gap Measuring in the Apparel Industry
Yordan K. KYOSEV, Jana SIEGMUND
Chair of Assembly Technology for Textile Products, ITM, TU Dresden, Dresden, Germany

10:20-10:50 **Coffee Break** – Foyer

10:50-12:40 **Technical Session 9: 3D Body Scanning for Social Sciences** – Room C

Session Chair: Prof Inga DĀBOLIŅA
Riga Technical University, Latvia

10:50 The Use of 3D Bodies in a Computerised and Immersive Virtual Reality Body Image Intervention
Nadia MAALIN 1, Kamila R. IRVINE 1, Andrew IRVINE 1, Piers L. CORNELISSEN 2, Kay L. RITCHIE 1, Martin J. TOVÉE 1
1 School of Psychology, University of Lincoln, UK; 2 School of Psychology, Northumbria University, Newcastle Upon Tyne, UK

11:12 The Development of a 3D Body Scan and Composition Database to Assess Body Size Perception in Psychological Research
Nadia MAALIN 1, Sophie M. MOHAMED 1, Robin S. KRAMER 1, Andrew IRVINE 1,
Piers L. CORNELISSEN 2, Kay L. RITCHIE 1, Martin J. TOVÉE 1
1 School of Psychology, University of Lincoln, UK; 2 School of Psychology, Northumbria University, Newcastle Upon Tyne, UK

11:34 Real-time 360° Body Scanning System for Virtual Reality Research Applications
Louis ALBERT 2, Florian LANCE 1, Margaux DUBESSY 2, Bruno HERBELIN 1, Gilles REYMOND 2, Olaf BLANKE 1
1 Laboratory of Cognitive Neuroscience, Ecole Polytechnique Fédérale de Lausanne, Geneva, Switzerland;
2 VR Facility, Foundation Campus Biotech Geneva, Geneva, Switzerland

12:56 From Body Movements to Music - A New Device for Movement Therapies
Christian BRÄUER-BURCHARDT 1, Matthias HEINZE 1, Roland RAMM 1,
Robert WECHSLER2, Ursula MÜLLER3, Peter KÜHMSTEDT 1, Gunther NOTNI 1,4
1 Fraunhofer IOF Jena, Jena, Germany; 2 Palindrome Dance Company e.V., Weimar, Germany;
3 Grenzenlos e.V., Jena, Germany; 4 Technical University Ilmenau, Ilmenau, Germany

10:50-12:50 **Technical Session 10: 3D Body Scanning Systems** – Room B1

Session Chair: Dr Junfeng PENG
Decathlon SportsLab, France

10:50 One Scan for All. Using Machine Learning Approaches to Apply an Accurate 4D Sequence Data Across Multiple Industries
Chris LANE
3dMD Ltd., London / Atlanta GA, UK / USA

11:12 QuantaCorp - 3D Body Scanning in the Real World, Anywhere, Anytime
Wim DEVOS
QuantaCorp, Ghent, Belgium

11:34 Multi-Sensor RGB-D Scanning with the ImFusion Vision SDK
Alexander LADIKOS
ImFusion GmbH, Munich, Germany

11:56 3D in the Dark - Full Body Scanning in Infrared
Niklas BRUSTEN
botspot GmbH, Belin, Germany

12:28 3D and 4D Body Scanning: A Cinematic Perspective
Dayton TAYLOR
Digital Air, New York NY, USA

12:40-14:10 **Lunch Break** – Foyer

14:10-16:00 **Technical Session 11: 3D Body Technology for Health & Sport** – Room C

Ses. Chair: Dr Fatima MERCHANT
The University of Houston, USA

14:10 Size Stream Body Fat Formulas


Breck SIEGLINGER, David BRUNER
Size Stream LLC, Cary, NC, USA

14:32 Development of a 3D Body Database to Improve Measures of Perceptual Male Body Image Distortion
Sophie MOHAMED 1,2, Nadia MAALIN 1, Robin KRAMER 1, Andrew IRVINE 1, Piers L. CORNELISSEN 3, Martin J. TOVÉE 1
1 School of Psychology, U. of Lincoln, UK; 2 Lincoln Institute for Health, U. of Lincoln, UK; 3 School of Psychology, Northumbria U., UK

14:54 3D Body Scanning in Fitness Clubs
Nikolay KOZLOV, Dzmitry KOMAR
Scaneca GmbH, Berlin, Germany

15:16 Fit3D: 3D Body Scans for Wellness: 55 Countries, 2,000 Scanners, and 1.3 Million Scans and Growing
Greg MOORE
Fit3D Inc., San Mateo CA, USA

15:38 A Motion Capture System for Sport Performance Analysis Based on Inexpensive RGB-D Sensors
Cyrille ANDRÉ, Cedric LEMAÎTRE, Matthieu VOIRY, Antoine LAVAULT
Apeira Technologies, Le Creusot, France

14:10-16:00 **Technical Session 12: 3D Body Technology for Apparel III** – Room B1

Session Chair: Prof Dinesh K. PAI
University of British Columbia, Canada

14:10 Working Group Progress for IEEE P3141 - Standard for 3D Body Processing, 2018-2019
SILVER
Carol MCDONALD 1, Alfredo BALLESTER 2, Randy K. RANNOW 3, Maxim FEDYUKOV 4, Inga DABOLINA 5
1 Gneiss Concept, Washougal, WA, USA; 2 Instituto de Biomecanica, Universitat Politècnica de València, València, Spain;
3 Silverdraft Supercomputing, Boise, ID, USA; 4 Texel, Moscow, Russia; 5 Institute of Design Technologies, RTU, Riga, Latvia

14:32 Garment Fit: Where Do We Stand?
Eva LAPKOVSKA, Inga DABOLINA, Liene SILINA
Riga Technical University, Faculty of Material Science and Applied Chemistry, Institute of Design Technologies, Riga, Latvia

14:54 3D Body Scanning in the Apparel Industry: Do We Really Know Where We Are Heading?
Monika JANUSZKIEWICZ 1, Christopher J. PARKER 2, Steven G. HAYES 1, Simeon GILL 1
1 The University of Manchester, Manchester, UK;
2 Loughborough University, Loughborough, UK

15:16 Novel Methods to Drive Pattern Engineering through and for Enhanced Use of 3D Technologies
Emma SCOTT 1, Simeon GILL 2, Carol MCDONALD 3
1 Fashion Should Empower, Vancouver Island BC, Canada; 2 The University of Manchester, UK;
3 Gneiss Concept, Washougal, WA, USA

15:38 How the U.S. Sport Performance Apparel Industry Sizes Up to Female Plus Bodies
Susan L. SOKOLOWSKI 1, Jessie SILBERT 1, Linsey GRIFFIN 2
1 University of Oregon, Portland OR, USA; 2 University of Minnesota, St. Paul, MN, USA

16:00-16:30 **Coffee Break** – Foyer

16:30-18:00 **Technical Session 13: 3D Body Technology for Apparel IV** – Room B1

Session Chair: Prof Inga DĀBOLIŅA
Riga Technical University, Latvia

16:30 Functional Body Measurements - Motion-Oriented 3D Analysis of Body Measurements
Simone MORLOCK, Christine LOERCHER, Andreas SCHENK, Anke KLEPSER
Hohenstein Institut fuer Textilinnovation gGmbH, Boennigheim, Germany

16:52 Method to Capture and Analyze the Waist-Hip-Thigh Body Region of Seated-Standing 3D Scans
Linsey GRIFFIN, Bethany JUHNKE, Emily SEIFERT, Colleen POKORNY, Karolina DORAN
University of Minnesota, St. Paul, MN, USA

17:14 The Detection of the Upper Boundary of Breasts Using 4D Scanning Technology
Jie PEI 1, Linsey GRIFFIN 2, Jintu FAN 1,3, Susan P. ASHDOWN 1
1 Department of Fiber Science and Apparel Design, Cornell University, Ithaca, NY, USA;
2 Department of Design, Housing, and Apparel, University of Minnesota, St. Paul, MN, USA;
3 The Hong Kong Polytechnic University, Kowloon, Hong Kong

17:36 Trends in Breast Measurements of Unilateral Breast Reconstruction Patients to Inform Bra Design
Krista M. NICKLAUS 1,2, Eloise JEWETT 1, Chi LIU 3, Jun LIU 2, Gregory P. REECE 2,
Summer E. HANSON 2, Fatima A. MERCHANT 1,4, Mia K. MARKEY 1,2
1 The University of Texas at Austin, USA; 2 The University of Texas MD Anderson Cancer Center, Houston, TX, USA;
3 Xi'an Polytechnic University, China; 4 University of Houston, TX, USA

18:00-18:10 **Closing Session** – Room B1

18:00 Closing Speech from the Conference Director and Announcements for 3DBODY.TECH 2020
Nicola D'APUZZO, Hometrica Consulting, Switzerland

GOLD Exhibitors & Sponsors

3dMD (USA/UK) www.3dmd.com
3dMD a proven leader in 3D high-precision anatomical scanning, will be demonstrating workflow efficiencies with its latest temporal-3D (4D) capture systems. 3dMD sequences of high-quality motion images of the full body, head, foot, and/or hand help promote and advance the creation of new wearable technologies that precisely adapt to a person's shape and enhance performance.

SPACE VISION (Japan) www.spacevision.tokyo
SPACE VISION manufactures innovative 3D full body and face scanning systems. Two different 3D full body scanners are offered: a portable type and a small footprint type. SPACE VISION offers also various 3D imaging solutions by using the 3D body data cloud service called Humanmetrics (HMS), which includes SPACE VISION's original 3D body scan data processing and measurement engines.

Size Stream (USA) www.sizestream.com
Size Stream is the leader in 3D body data and scanning solutions for the apparel, health, and fitness industries. With hundreds of customers throughout the globe, Size Stream is one of the most widely implemented platforms for acquiring accurate and affordable 3D body data. Size Stream brings over 100 years of combined experience in 3D body scanning, fashion design, and technology development to their valued customers.

The Institute of Biomechanics IBV (Spain) anthropometry.ibv.org
IBV presents a high-speed 4D body scanner, MOVE 4D, the new generation of automatic & markerless 3D human body motion scanner. IBV is a leading company using advanced 3D data treatment tools (accurate and automated creation of 3D body avatars from 3D raw scans, 2D pictures or 1D measurements; 3D databases harmonisation tools, virtual measuring tape or shape analysis tools) and smartphone 3D scanning technologies to support innovative business models based on user anthropometry.

Avalution (Germany) www.avalution.net
Avalution puts the human being at the heart of product development. The company has the world's largest body dimension database which contains the body scans of around 100,000 persons. Avalution also carries out serial measurement surveys and is a leader in the field of body scanning. More than 20 employees at the company with headquarters in Germany make size & fit and ergonomics measurable for product development in various industries.

QuantaCorp (Belgium) www.quantacorp.io
QuantaCorp offers 3D body measurement systems for mobile devices. Just two pictures are required to measure and sizing the entire body with QuantaCorp's technology. Results are delivered automatically within 10 seconds, from start to finish. The 3D avatar and measurements are instantly available. Applications are focused in retail, health/fitness and medical markets.

Shapewatch (Belgium) www.shapewatch.com
Shapewatch, part of QuantaCorp (Belgium), is an innovative 3D body scanner and visualisation solution. It allows members to scan their bodies, track key biometrics, see their body shape in 3D and analyse their functional movement - making progress tracking toward health and fitness goals more real, motivational and empowering.

SILVER Exhibitors & Sponsors

IEEE-SA (USA) standards.ieee.org
The IEEE-SA is a leading consensus building organization that nurtures, develops and advances global technologies. IEEE standards drive the functionality, capabilities and interoperability of a wide range of products and services that transform the way people live, work and communicate, including IEEE's Industry Connections program on 3D Body Processing.

Web3D Consortium (USA) www.web3d.org
Web3D Consortium, founded in 1997, is an International, non-profit, member-funded, industry standards development organization. Web3D Consortium develops and maintains royalty-free ISO standards for web-based 3D graphics. Of particular interest for 3D body data are the X3D (Extensible 3D) Graphics Standard and the H-Anim (Humanoid Animation) International Standard.

ImFusion (Germany) www.imfusion.com
ImFusion offers software solutions and R&D services for 3D scanning, computer vision and medical image analysis. ImFusion's software platform allows rapid development of custom scanning and geometry processing solutions using GPU-accelerated algorithms and advanced interactive visualization. Popular RGB-D sensors are directly supported. For common use cases, ImFusion's RecFusion software offers ready-to-use real-time scanning solutions supporting one or multiple RGB-D sensors.

TechMed 3D (Canada) techmed3d.com
TechMed 3D's mission is to make CAD-CAM technologies for human body accessible by developing and offering the most user-friendly and fast scanning system. TechMed 3D (Canada) helps practitioners in the orthotics, prosthetics and custom made equipment industry to seamlessly integrate technology to their business, to make their life easier, increase their productivity, their turnaround time and their profitability.

SILVER Exhibitors & Sponsors (cont.)

Digital Air (USA) digitalair.com
Digital Air (USA) produces synchronous camera array systems for instantaneous 3D and 4D body capture and has produced custom 2D camera array systems for Adidas, Apple, Nike and others. Digital Air's founder, Dayton Taylor, pioneered the virtual camera movement visual effects used in The Matrix (1999) and Tony Scott's Deja Vu (2006), and with MPC produced the first 4D holographic humans for Paramount Pictures Ghost in the Shell (2017).

botspot (Germany) www.botspot.de
Since 2013 botspot develops and builds 3D scanners "Made in Germany". The scanning technology utilizes photogrammetry that enables contactless, rapid and completely safe scanning. Objects of every size and every shape are scanned in just 0,01 seconds, the digital 3D replica appears as ultra precise data with highly colorfast texturing. Individual complete scanning solutions within every scope of application are also realized in the special botspot R&D department.

Elasizer (Italy) www.elasizer.com
Elasizer offers unique ground-breaking solution for human body scan, aiming to make the process of individual wear fitting fast, easy, and precise. The easy 3D body scanning technology based on a special elastic measuring garment is a compromise between expensive measuring rigs and low cost methods, which narrows the gap between manufacturer and customer in modern mass market and line production.

Manometric (The Netherlands) manometric.nl
Manometric creates the digital standard for brace production, highly improves the quality and comfort of orthotics and reduces drastically manual labor with unique 3D print & scan technology. For medical analysis and the production of orthotics and prosthetics, a 3D scan is the starting point. With ManoX - an instant, reliable way of body scanning - the entire hand is 3D scanned faster than the blink of an eye.

Vital Mechanics Research (Canada) www.vitalmechanics.com
Vital Mechanics Research develops the world's most advanced computational models of the human body. Its patent-pending technology simulates how the human body moves and interacts with physical objects, leveraging two decades of research in soft tissue biomechanics at the University of British Columbia. Its software solutions enable digital transformation of the apparel pipeline, particularly for close-to-body garments.

Bespokify (Singapore) bespokify.com
Bespokify is a leading fashion-tech company that generates custom-fitted apparel patterns in seconds, no matter the body type or product design. Bespokify's API fully automates custom pattern creation from 3D body scans or hand measurements, which can be cut straight to fabric within seconds of an order being placed. Bespokify integrates will all major 3D scanning vendors for the apparel industry.

Xi'an Chishine Optoelectronics Technology (China) en.chishine3d.com
Xi'an Chishine Optoelectronics Technology is an high-tech company originated in Xi'an and backed by Xi'an Jiaotong University and Xi'an Institute of Optics and Precision Mechanics. Chishine focuses on 3D digitization systems, holding the notion of "accurate and easy scan". Chishine fast 3D face scanners are used in the fields of medicine, cosmetics, biometry and others.

Revopoint 3D Technologies (USA/China) www.revopoint3d.com
Revopoint 3D Technologies, part of Xi'an Chishine Optoelectronics Technology, is an emerging high-tech company specialized in providing 3D digitalization and intelligent image recognition solutions. Revopoint's team is committed to developing and manufacturing more intelligent and highly accurate 3D cameras that are easy to use for everyone.

meepl (Switzerland) www.meepl.com
meepl deals with the acquisition and processing of body-related data and provides software solutions for the apparel industry. Leveraging artificial intelligence and visual computing, meepl enables brands and retailers to reduce return rates, digitize supply chains and deliver an interactive and personalized 3D shopping experience to end users. meepl's product portfolio offers smartphone-based 3D body scanning, size recommendation, 3D virtual showroom and 3D virtual dressing room.

SizeYou by i-Deal (Italy) www.SizeYou.it
SizeYou, by i-Deal, collects the measures of the whole body by two pictures from a smartphone. The peculiarities of the process are the completely anonymized identity of the subject and the absolute privacy protection (developed specifically for healthcare, security and defense domains). SizeYou app collects human measures by A.I., reproducing the behavior of a professional tailor and providing the contour of the body, the posture, a graphical visualization and the evolution in time.

Sizolution (Germany) sizolution.com
Sizolution helps fashion stores boost sales and reduce returns by bringing real personalization to the customer experience. AI and computer vision are used to precisely determine body measurements from a simple questionnaire or a body selfie right in websites or smartphone app and deliver size recommendation with detailed fit prediction based on the customer's body and garment properties.

BRONZE Exhibitors

Gertsch Consulting & Mode Vision (Switzerland) gertsch.ch
Gertsch Consulting & Mode Vision is specialized on products, solutions and services for the apparel and fashion industry. Gertsch Consulting & Mode Vision offers manufacturers and suppliers of individualized made-to-measure clothing, the "pod-Pattern on Demand", a platform for digitizing the processing from the e-commerce to the finished layplan/marker for the cutting room.

DittoForm Michigan (USA) www.dittoform.com
DittoForm Michigan produces the custom dress forms DittoForms. The precision carved, high-resolution dress forms are made by starting with a 3D body scan and by translating the digital files into a physical figure. DittoForm is a copy, a "ditto", of a real person and captures significant details of the body shape. This means the form also includes important landmark references when fitting clothes or developing patterns.

3D Body Cloud (Belgium) 3dbodycloud.com
3D Body Cloud is a software company that offers cloud services for processing 3D full body scans. 3D Body Cloud's API supports back offices by offering automated processing pipelines to turn raw 3D scans into producible and/or publishable results, such as 3D printed figurines, 2.5D products, rigged models and animation videos.

HOLOFIL by Artosci (The Netherlands) www.holofil.com
HOLOFIL by Artosci is a 3D visualization tabletop device that creates engaging visual experiences for promotions, product marketing, branding, education and training. It can be used in different scenarios including retail, healthcare, events, gaming, education. HOLOFIL's mixed reality mode allows combination of physical objects and virtual content to create engaging visual stories.

Presize.ai (Germany) presize.ai
Presize.ai helps fashion online shops reduce returns, increase conversions and personalize the UX based on users' individual body. Users just turn around once in front of their smartphone camera and receive size recommendations for every clothing item. The patent pending video scanning technology is as accurate as a professional tailor's manual measurements.

Bodyform3D (Canada) www.bodyform3d.com
Bodyform3D leverages computer vision and machine learning to provide 3D body scanning software available from any mobile devices. Bodyform3D builds ready-to-use mobile applications optimized for the custom-made and healthcare industry to give the power to seamlessly integrate accurate individual's morphological data.

Shape Analysis (UK) shapeanalysis.com
Shape Analysis is the exclusive worldwide distributor of the CAESAR 3-D Anthropometric Database. The company has extensive experience in the development and use of 3D capture systems. Services of Shape Analysis have been used for the National Sizing Survey SizeUK, ShapeGB and for many other companies involved in apparel, health, fitness, sportswear, medical applications.

BRONZE Sponsors

Meshcapade (Germany) meshcapade.com
Meshcapade aims to revolutionize the world of human body modeling, sizing, and animation. Meshcapade employs a state of the art statistical model that encodes realistic shapes, sizes, and motions. The goal is to make animating, simulating, and recognizing human bodies effortless, and to bring realistic virtual humans into simulation and 3D environments.

HOMETRICA CONSULTING (Switzerland) www.hometrica.ch
Hometrica Consulting - Dr. Nicola D'Apuzzo is organizing the series of 3DBody.Tech Conference & Expo. Hometrica Consulting is a leading international consulting firm in the sectors of 3D human body scanning and processing technologies.

Supporters

City of Lugano (Switzerland) www.lugano.ch
The city of Lugano is officially supporting the 3DBODY.TECH Conference & Expo. The welcome cocktail offered to all attendees on Tuesday evening has been made possible with the city's support.

Conference Office

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Conference website: www.3dbody.tech info@3dbody.tech
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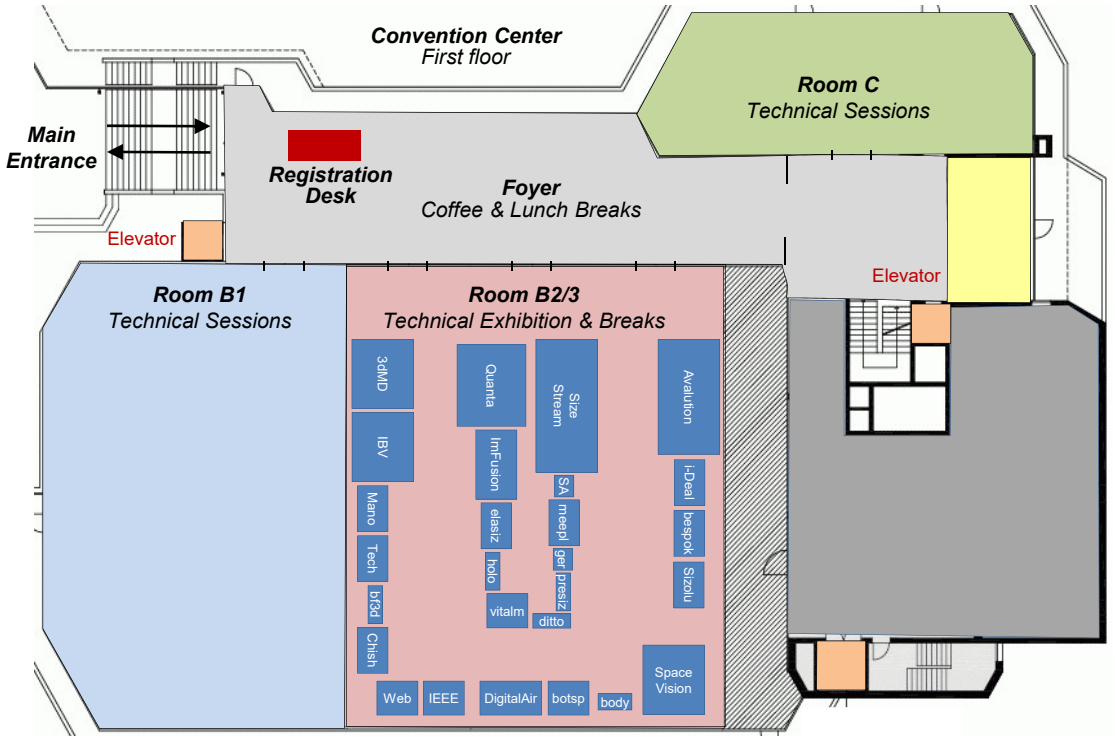
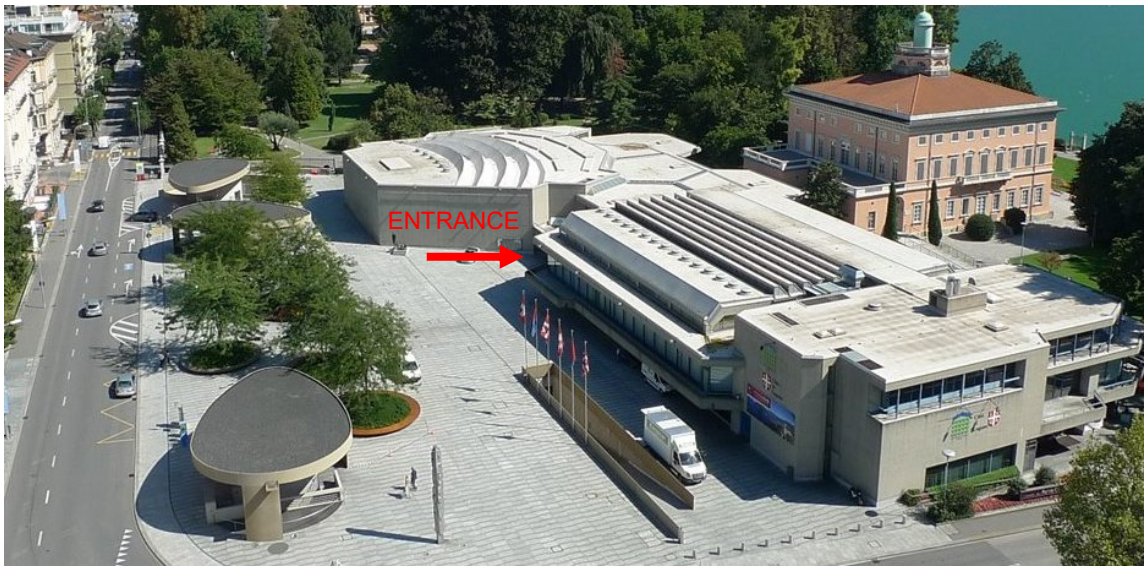
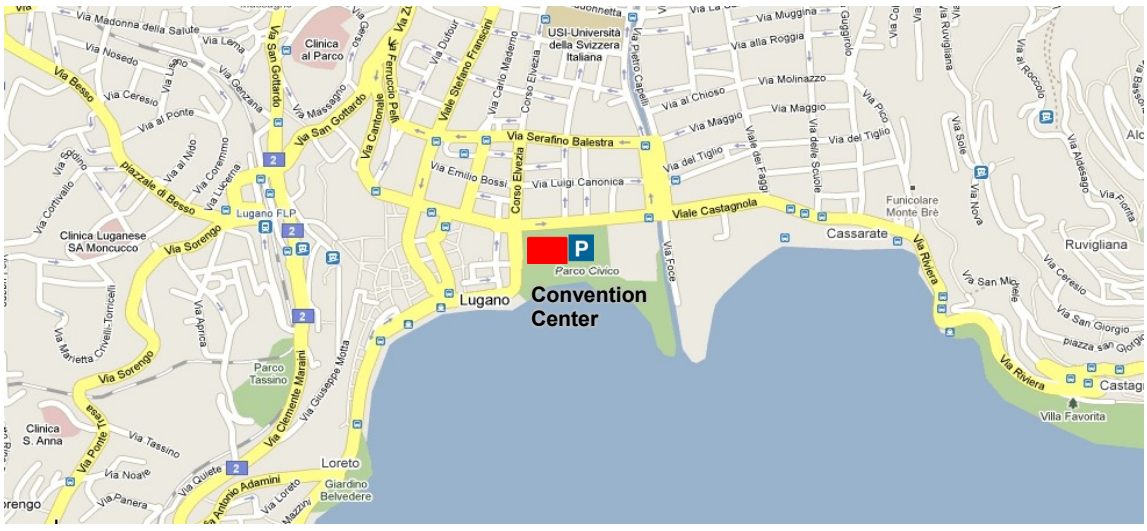
hometrica consulting
HOMETRICA CONSULTING - Dr. Nicola D'Apuzzo
Ascona, Switzerland www.hometrica.ch

3DBODY.TECH Conference & Expo Venue: Lugano Convention Center - Palazzo dei Congressi Lugano

The conference and exhibition take place at the 1st floor of the Convention Center







Address: Palazzo dei Congressi, Piazza Indipendenza 4, 6900 Lugano, Switzerland
www.luganoconventions.com

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