3DBODY.TECH 2022 - PROGRAM



13th 3DBODY.TECH Conference & Expo

Lugano, Switzerland · 25-26 October 2022

Program Outline

3DBODY.TECH 2022 ONSITE + ONLINE, Lugano, Switzerland, 25-26 October 2022, www.3dbody.tech 13th International Conference and Exhibition on 3D Body Scanning and Processing Technologies CEST (Central European Summer Time) UTC+2 - Time Zone Rome/Paris/Berlin/Madrid Time Tuesday 25 October 2022 Wednesday 26 October 2022 Exhibition 08:00 Registration Setup **Exhibition** Setup Registration **Exhibition** Onsite + Online 09:00 Technical Session 7 Technical Session 8 **Exhibition** 3D Body Scanning for 3D/4D Body Scanning Ons.Exhibitors Onsite **Medical Applications** for Apparel II Live Stream 4 Online **Opening Session** 10:00 Coffee Break Coffee Break 11:00 Technical Session 9 Technical Session 10 Onsite 3D Foot **Exhibitors** Metaverse Technical Session 1 Technical Session 2 Onsite Live Stream 5 Scanning & Avatars **Exhibitors** 3D/4D Body Scanning 3D/4D Body Scanning 12:00 Live Stream 1 & Processing Systems & Uses I Rem.Exhibitors 13:00 Lunch Break Live Stream Lunch Break 14:00 Technical Session 11 Technical Session 12 Onsite **Exhibitors** 3D/4D Body Scanning Digital Anthropometry Live Stream 6 & Ergonomics for Apparel III 15:00 Technical Session 3 Technical Session 4 Onsite 3D/4D Body Scanning 3D/4D Body Scanning **Exhibitors** Systems & Uses II for Apparel I Live Stream 2 Coffee Break 16:00 Panel Discussion 3D/4D Body Scanning & Processing Onsite Coffee Break Quo Vadis? Exhibition Breakdown Technical Session 13 17:00 **Anthropometric** & Sizing Surveys Technical Session 5 Technical Session 6 Onsite 3D/4D Body 3D/4D Body Scanning **Exhibitors** Closing Session 18:00 Live Stream 3 **Processing** Systems & Uses III 19:00 **Welcome Cocktail**

Conference Office

Conference office: HOMETRICA CONSULTING - Dr. Nicola D'Apuzzo

Contrada Maggiore 2, CH-6612 Ascona, Switzerland

Conference website: www.3dbody.tech info@3dbody.tech

Conference phones: +41.91.791.5524



3DBODY.TECH 2022 - PROGRAM

13th 3DBODY.TECH Conference & Expo · Lugano, Switzerland · 25-26 October 2022 · <u>www.3dbody.tech</u>

Tuesday 25 October 2022 - CEST (Central European Summer Time) UTC+2 - TimeZone Zurich/Rome/Paris/Berlin/Madrid

08:00-09:30 Registration - Welcome Desk / Pre-conference 1-on-1 Networking

09:30-10:40 Opening Session - Room B1 / Track 2 Blue

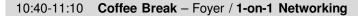
09:30 Welcome Speech from the Conference Director Nicola D'APUZZO, Hometrica Consulting, Switzerland

09:50 World Premieres, Product Launches and Announcements from GOLD & SILVER Exhibitors Size Stream (USA), IBV (Spain), tOOiin (France), 3dMD (USA), ZOZO (Japan), VyoO (Canada), **JAIF**

Prism Labs (USA/Austria), botspot (Germany), Revopoint (USA/China), ImFusion (Germany),

Made To Form (Switzerland), ESENCA (UK), IEEE-SA (USA), TechMed 3D (Canada)





11:10-13:00 Technical Session 1: 3D/4D Body Scanning & Processing - Room C / Track 1 Green

Session Chair: Dr Mikoláš JURDA - Assistant Professor at Dept. of Anthropology of Masaryk University, Brno, Czech Republic

3D Scanning Technologies for Human Face Expression Recognition: A Comparison Framework

१ € [A] [Department of Management and Production Engineering, Politecnico di Torino, Turin, Italy #71

Personalized Fitting of Respiratory Mask Using 3D Numerical Simulation and Finite Element Analysis

11:32 Hugo TAECKENS 1, Arthur AGOSTINI 1, Loïc DEGUELDRE 2, Bahe HACHEM 2,

Sean-Philippe VIENS 3, Aude CASTONGUAY-HENRI 3, Jonathan BORDUAS 3, Luc DUONG

1 École de Technologie Supérieure, Montréal QC, Canada;

2 Numalogics, Montréal QC, Canada; 3 ShapeShift 3D, Montréal QC, Canada #48

11:54 Opportunities and Current Obstacles to Use MOVE4D for Cycling Analysis

Luca ULRICH, Sandro MOOS, Federica MARCOLIN, Enrico VEZZETTI

Alexander VAN GASTEL, Stijn VERWULGEN [*****

University of Antwerp, Antwerp, Belgium #42 virtual/online

12:16 OrienNormNet: Orientation Normalization of 3D Body Models

Ran ZHAO, Xinxin DAI, Pengpeng HU, Adrian MUNTEANU [AI] Vrije Universiteit Brussel, Belgium #36

12:38 Adaptive Body Circumference Measurement Technique using Ellipse Formula Mohammad MONTAZERIAN, Frederic FOL LEYMARIE

Goldsmiths, University of London, Computing Dept., London, UK #12

virtual/online

virtual/online

11:10-13:00 Technical Session 2: 3D/4D Body Scanning Systems & Uses I - Room B1 / Track 2 Blue

Session Chair: Evridiki PAPACHRISTOU - Ass. Professor at Creative Design & Clothing Dept. of IHU International Hellenic University, Greece

11:10 Yes, We Scan

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Beatriz MAÑAS BALLESTER Ť

IBV Instituto de Biomecánica de Valencia, Universitat Politècnica de València, Spain #53

11:32 Commercial and Research Revolutions Enabled by 3D Body Scanning David BRUNER, Richard ALLEN

Ť Size Stream LLC, Cary NC, USA #01 11:54

Size Recommendations and their Opportunities for the Workwear Sector Minou LASHGARI, Ulrike GRUEN

Avalution GmbH, Kaiserslautern, Germany #08 12:16 3D Body Scanning - Fashion and Beyond

Takayasu YAMADA M

ZOZO Inc., Chiba, Japan #67 12:38 Efficient 4D Enrollment Workflow of Human Performance Producing

Medical-Grade Data Models to Train, Wear, and Populate the Metaverse

Chris LANE, Daniel LAYFIELD 3dMD LLC, Atlanta GA, USA #28

virtual/online

online+onsite

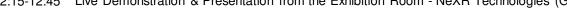


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11:30-12:45 Onsite Exhibitors Live Stream 1 – Track 3 Rose

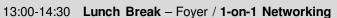
11:30-12:00 Live Demonstration & Presentation from the Exhibition Room - ESENCA (UK)

Live Demonstration & Presentation from the Exhibition Room - NeXR Technologies (Germany) 12:15-12:45







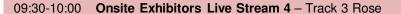


14:30-16:20 Technical Session 3: 3D/4D Body Scanning Systems & Uses II - Room C / Track 1 Green Session Chair: Dr Yannick FRANCKEN - Head of R&D Europe at Bodidata Inc., USA/Belgium Reconstruction of Non-Rigid Subjects Using a Single Camera 14:30 Stephen RAYMOND * AI Prism Labs Inc., Santa Monica CA, USA / Vienna, Austria #68 3D Body Scanning with RecFusion 14:52 Alexander LADIKOS ImFusion GmbH, Munich, Germany #64 15:14 Revopoint High Precision 3D Scanners and Applications Vivian LI Revopoint International Limited, USA / China #40 Low Cost Scanner and Scannerless Acquisition in 2022: What's Up and What's Next! 15:38 Michel BABIN Ť TechMed 3D, Lévis QC, Canada #70 15:58 Mantis Vision Volumetric Capture Studios and Use Cases **Rob CHRISTENSEN** 3 Mantis Vision USA, Rapid City SD, USA #74 14:30-16:20 Technical Session 4: 3D/4D Body Scanning for Apparel I - Room B1 / Track 2 Blue Session Chair: Sandra ALEMANY - Lead Reseacher at IBV, Universitat Politècnica de València, Spain 14:30 Development of Clothing-Related Assistance Systems to Support the Mobility Ellen WENDT, Doudou ZHANG, Sybille KRZYWINSKI, Yordan KYOSEV 3 TU Dresden, Institute of Textile Machinery and High Performance Material Technology, Germany #09 14:52 Testing a Smartphone Application for the Optimisation of Organisational Outfitting Procedures for Protective Clothing Dominik OEHLSCHLÄGER 1, Marina WEIßE 2, Cindy BAGGE 2, Carsten ZIMMERMANN 2, Andreas H. GLAS 1, Jens HOLTMANNSPÖTTER 2, Michael EßIG 1 1 Bundeswehr University Munich, Neubiberg, Germany; 2 Bundeswehr Research Institute for Materials, Fuels and Lubricants, Erding, Germany #07 15:14 Comparative Analysis of 4D Scanning and Mobile Dynaback Sensors for Ambulator: Imparative Analysis of 4D Scanning and Mobile Dynaback Sensors for Ambulator: Imparative Analysis of 4D Scanning and Mobile Dynaback Sensors for Ambulator: Imparative Analysis of 4D Scanning and Mobile Dynaback Sensors for Ambulator: Imparative Analysis of 4D Scanning and Mobile Dynaback Sensors for Ambulator: Imparative Analysis of 4D Scanning and Mobile Dynaback Sensors for Ambulator: Imparative Analysis of 4D Scanning and Mobile Dynaback Sensors for Ambulator: Imparative Analysis of 4D Scanning and Mobile Dynaback Sensors for Ambulator: Imparative Analysis of 4D Scanning and Mobile Dynaback Sensors for Ambulator: Imparative Analysis of 4D Scanning Analysis of Yordan KYOSEV 1, Jana SIEGMUND 1, Felix KUNZELMANN 1, Ilvaylo VATOVSKI 2, Sabri I CANCELED 3 1 TU Dresden, ITM, Chair of Development and Assembly of Textile Products, Dresden, Germany; 2 Madesign Ltd, Sofia, Bulgaria #22 15:38 Method for Evaluation of the Motion Comfort of the Clothing for Deaf People Using of High Speed (4D) Scanning Nataliya SADRETDINOVA 1,2, Yordan KYOSEV 2 3 1 Kyiv State University of Technologies and Design, Kiev, Ukraine; 2 TU Dresden, Institute of Textile Machinery and High Performance Material Technology, Dresden, Germany #60 virtual/online Evaluating Fit by Using Animated Body Scan Avatars and Digital Coveralls 15:58 Fatma BAYTAR, Mona MAHER, Aditi GALADA Department of Human Centered Design, Cornell University, Ithaca NY, USA #51 virtual/online 14:45-16:00 Onsite Exhibitors Live Stream 2 - Track 3 Rose 14:45-15:15 Live Demonstration & Presentation from the Exhibition Room - Avalution (Germany) 15:30-16:00 Live Demonstration & Presentation from the Exhibition Room - Made To Form (Switzerland) 16:20-17:00 Coffee Break - Foyer / 1-on-1 Networking 17:00-18:50 Technical Session 5: 3D/4D Body Processing - Room C / Track 1 Green Session Chair: Rudi SCHUBERT - Director New Initiatives at IEEE-SA, Piscataway NJ, USA Introducing the 5 Definitions, Human, Humanoid, Cover, Coveroid, Transformation 17:00 Carol MCDONALD Gneiss Concept, Washougal, WA, USA #46 17:05 Relationships Between Rigs and Humanoid and Coveroid Landmarks William GLASCOE 1, Katy SCHILDMEYER 2, Emma SCOTT 3, Simeon GILL 4, Alfredo BALLESTER 5, Carol MCDONALD 6 1 Web3D Consortium, Burtonsville, MD, USA; 2 3 KS Apparel Design & Consulting, Salt Lake City, UT, USA; 3 Fashion Should Empower Research Group, Victoria, BC, Canada; 4 The University of Manchester, Manchester, England, UK; 5 Instituto de Biomecánica de Valencia, Universitat Politècnica de València, Spain; 6 Gneiss Concept, Washougal, WA, USA #30 Apparel Fit Language Suited to 3D Body Processing Ecosystems 17:26 Emma SCOTT 1, Simeon GILL 2, Susan ASHDOWN 3, Gerald RUDERMAN 4 1 Fashion Should Empower, Victoria BC, Canada; 2 Dept. of Materials, The University of Manchester, Manchester, UK; 3 Cornell University, Ithaca NY, USA; 4 Zdoit, Brooklin NY, USA #41 Characterizing Apparel & Fit for Virtual and Physical Worlds with Logic Statements 17:47 Carol MCDONALD 1, Jayamali DE SILVA 2 1 Gneiss Concept, Washougal, WA, USA; 2 Department of Textile and Apparel Engineering, University of Moratuwa, Sri Lanka #14 18:08 Fit Validation and Assessment Through Block Comparison Fashion Should Empower Research Group, Vancouver Island, BC, Canada #19 18:29 Method for Automatic Analysis of the Clothing Related Body Dimension Changes During Motion Using High-Speed (4D) Body Scanning ***** Yordan KYOSEV, Vanda TOMANOVA, Ann-Malin SCHMIDT TU Dresden, ITM, Chair of Development and Assembly of Textile Products, Dresden, Germany #24

Technical Session 6: 3D/4D Body Scanning Systems & Uses III - Room B1 / Track 2 Blue 17:00-19:00 Session Chair: Tim GUENZEL - Senior Consultant Body Scanning at Human Solutions of North America, Morrisville NC, USA 17:00 The Advantage of Deploying Precision Medical-Grade 4D Data to Efficiently Achieve Quality Results in the Downstream Metaverse AI/CV/ML Training Pipeline Chris LANE, Andrew AUBREY 3dMD LLC, Atlanta GA, USA #29 virtual/online How to use Human Digital Twins as a Part of a Personal Digital Identity for Web 2 and Web 3? 17:21 Mathieu PERCIE DU SERT, Guillaume COURSIN tOOiin, Sèvres, France #55 17:42 Systematic Millimeter Accuracy through Advanced Lighting and Scanning for Custom Tailoring Andreea DICAN, Ken VARNER botspot AG, Berlin, Germany #58 18:03 The Future of Fashion with Less Return Waste and Perfect Size Recommendations and Virtual Fitting Thomas RICHTER, Florian KETTE NeXR Technologies SE, Berlin, Germany #59 18:24 3D Automatic Measures from a Simple "Smart" Video GOLD Laurent JUPPÉ VyoO, Montreal QC, Canada #69 18:45 Fast and Robust Body Measurements Extraction Used in Virtual Try-On Exploration **Eduard COJOCEA** ESENCA Ltd., London, UK #73 Onsite Exhibitors Live Stream 3 - Track 3 Rose 17:10-18:50 17:10-17:40 Live Demonstration & Presentation from the Exhibition Room - TechMed 3D (Canada) Live Demonstration & Presentation from the Exhibition Room - Prism Labs (USA) 17:50-18:20 18:30-18:50 Live Demonstration & Presentation from the Exhibition Room - Size Stream (USA) GOLD 19:00-21:00 Welcome Cocktail / 1-on-1 Networking Wednesday 26 October 2022 - CEST - UTC+2 - Time Zone Zurich/Rome/Paris/Berlin/Madrid 08:00-08:50 Registration – Welcome Desk / 1-on-1 Networking 08:50-10:20 Technical Session 7: 3D Body Scanning for Medical Applications – Room C / Track 1 Green Session Chair: Dr Martin ČUTA - Assistant Professor at Dept. of Anthropology of Masaryk University, Brno, Czech Republic 08:50 Digitization in the Orthopedic & Prosthetic Industry: From 3D-Scan to Orthopedic Aid Sonja BENNIS, Max THALMEIER, Khoi LAM, Bianca WEBER Mecuris GmbH, Munich, Germany #05 09:12 Feedback Mechanisms of an iOS App to Record RGBD Data for Al-Based Diagnosis and Monitoring of Infant Head Deformation Fabian RAPP 1, Samuel ZEITVOGEL 3, Christian MEDER 1, Kai STOEVESANDT 2, Christian WERNET 3, Astrid LAUBENHEIMER 3 1 inovex GmbH, Karlsruhe, Germany; 2 VARILAG GmbH & Co. KG, Ettlingen, Germany; 3 Intelligent Systems Research Group (ISRG), Karlsruhe University of Applied Sciences, Karlsruhe, Germany #39 Comparison of Optical Handheld 3D Scanners Suitable for Prosthetic and Orthotic Applications 09:34 Branko ŠTEFANOVIČ, Bibiána ONDREJOVÁ, Lucia BEDNARČÍKOVÁ, Teodor TÓTH, Jozef ŽIVČÁK virtual/online Technical University of Košice, Dept. of Biomedical Engineering and Measurement, Košice, Slovakia #06 08:50-10:20 Technical Session 8: 3D/4D Body Scanning for Apparel II - Room B1 / Track 2 Blue Session Chair: Gerald RUDERMAN - Chief Designer at Zdoit, Brooklyn NY, USA 08:50 Custom-Fitted Apparel at Scale: Challenges & Solutions Taime KOE Six Atomic, Singapore #32 09:12 Innovative Breakthrough with Bespoke 4D: How to Directly Create 3D/4D Garment Alexandre KUNG 3 Made To Form (MTF), Geneva, Switzerland #61 09:34 A Pilot Study Using a Remote, Al-Powered Measurement Technology to Enable a Decentralised Production System, from Ideation to Delivery **∄AI**È Colette JOHNSON 1, Francesca DONADONI 1, Thakane BAZILL 2

1 The PS Collective Inc., Brooklyn, NY, USA; 2 TAKAII U.G., Cologne, Germany #20

Michela ORNATI 1,2, Anna PICCO-SCHWENDENER 1, Suzanna MARAZZA 1 1 Univ. della Svizzera italiana, Lugano, Switzerland; 2 Univ. of Applied Sciences and Arts of S. Switzerland, Lugano, Switzerland #34



Virtual Fit Platforms in Fashion E-Commerce

09:56

09:30-10:00 Live Demonstration & Presentation from the Exhibition Room - VyoO (Canada)

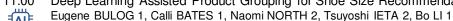




11:00-12:30 Technical Session 9: 3D Foot Scanning - Room C / Track 1 Green

Session Chair: Dr Manoj TIWARI - Associate Professor at National Institute of Fashion Technology, Jodhpur, India

Deep Learning Assisted Product Grouping for Shoe Size Recommendation



1 ZOZO New Zealand Ltd., Auckland, New Zealand; 2 ZOZO Inc., Tokyo, Japan #63

11:22 Improving 3D Registration Results of Foot Models Dramatically

with a Machine Learning Enhanced Geometric Feature Extraction

Tobias PFROMMER

AJE M

ShoeFitter GmbH, Konstanz, Germany #43

11:44 Automatic Foot Measurement Extraction from a 3D Point Cloud via a Deep Neural Network Nastaran NOURBAKHSH KAASHKI, Xinxin DAI, Pengpeng HU, Adrian MUNTEANU AIE 🛉

Department of Electronics and Informatics, Vrije Universiteit Brussel, Brussels, Belgium #47

12:06 Analysis of Hallux Valgus Angles Using 3D Foot Scans

Ales JURCA 1,2, Yang JIAO 1, Sašo DŽEROSKI 3,2

1 Volumental AB, Stockholm, Sweden; 2 Jozef Stefan International Postgraduate School, Ljubljana, Slovenia;

3 Jozef Stefan Institute, Ljubljana, Slovenia #56

11:00-12:30 Technical Session 10: Metaverse & Avatars - Room B1 / Track 2 Blue

Session Chair: Andrew CRAWFORD - Managing Director at Sizemic Ltd, London, UK

11:00 The Key to an Open, Functional, and Interoperable Metaverse

Anita HAVELE 1, Nicholas POLYS 2, William BENMAN 3

1 Web3D Consortium, USA; 2 Virginia Tech, USA; 3 Integrated Virtual Network, USA #27

11:22 Analyzing the Gap between Physical and Digital Fashion

Arzu VURUSKAN, Ece SAHIN

Izmir University of Economics, Department of Textile and Fashion Design, Izmir, Turkey #54

11:44 Optitex Avatar Framework Enables Modelling Agencies and Mannequin Providers to License Digital Replicas of Their Models for Fashion Brands and Manufacturers Maria LANDO

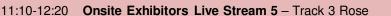
Optitex, Rosh HaAyin, Israel #65

12:06 Meshcapade's Avatar as a Service Platform

Naureen MAHMOOD

Meshcapade GmbH, Tuebingen, Germany #66

online+onsite



11:10-11:40 Live Demonstration & Presentation from the Exhibition Room - Revopoint (China/USA)

11:50-12:20 Live Demonstration & Presentation from the Exhibition Room - ZOZO (Japan)

12:30-13:50 Lunch Break - Foyer / 1-on-1 Networking

Remote Exhibitors Live Stream - Track 3 Rose 13:00-13:30

Live Demonstration & Presentation from Exhibitors' HQs/Offices - IBV (Spain) 13:00-13:30





Technical Session 11: Digital Anthropometry & Ergonomics - Room C / Track 1 Green 13:50-15:40

Session Chair: Dr Erik BROLIN - Senior Lecturer in Product Design Engineering at University of Skövde, Mölnlycke, Sweden

13:50 Moving 1-1 Custom Fit to Everyday Consumers at Normal Prices. How THEMAGIC5 Did That.

Bo HAABER

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THEMAGIC5 Inc., Charlotte NC, USA #72

Population-Wide Facial 3D Database-Based Validation and Modification of a Filtering Half-Mask 3D Design 14:12 Mikoláš JURDA, Martin ČUTA

Department of Anthropology, Faculty of Science, Masaryk University, Brno, Czech Republic #10

14:34 Reliability and Accuracy of Mobile 3D Scanning Technologies for the Customization of Respiratory Face Masks Arthur AGOSTINI 1,2, Aude CASTONGUAY-HENRI 1, Sean-Philippe VIENS 1, Jonathan BORDUAS 1, Luc DUONG 2 1 Technologies Shapeshift 3D Inc., Montréal QC, Canada; 2 École de Technologie Supérieure, Montréal QC, Canada #44

Comparing Univariate and Multivariate Analysis of Anthropometric Measurements 14:56

from 3D Body Scans for Ergonomic Work System Designs

Alexander ACKERMANN, Sascha WISCHNIEWSKI

Federal Institute for Occupational Safety and Health (BAuA), Dortmund, Germany #13

15:18 Robust Body Shape Correspondence with Anthropometric Landmarks

Yibo JIAO 1, Chang SHU 2, Dinesh K. PAI 1

1 University of British Columbia, Vancouver, BC, Canada;

2 National Research Council Canada, Ottawa, ON, Canada #17









13:50-15:40 Technical Session 12: 3D/4D Body Scanning for Apparel III - Room B1 / Track 2 Blue

Session Chair: Prof Dr Yordan KYOSEV - Head of the Chair of Development & Assembly of Textile Prod. at ITM, TU Dresden, Germany

13:50 Evaluation of 3D Body Scans from Mobile App via Virtual & Physical Try-On Garments

Evridiki PAPACHRISTOU 1, Despoina KALAINTZI 2, Nikolaos BILALIS 2

1 Creative Design & Clothing, International Hellenic University, Thessaloniki, Greece;

2 School of Production Engineering & Management, Technical University of Crete, Chania, Greece #37

14:12 Comparative Assessment of Validation and Reliability of Sizestream 3D Scanner

for Human Body Measurement Using Two Different Approaches

Manoj TIWARI 1, Noopur ANAND 1,2

1 Department of Fashion Technology, National Institute of Fashion Technology, Jodhpur, India;

2 Department of Fashion Technology, National Institute of Fashion Technology, New Delhi, India #52

14:34 Comparison of 3D Body Scanning Mobile Applications:

A Study of MeThreeSixty and 3D Look Mobile Apps Body Measurements

Sadia IDREES, Gianpaolo VIGNALI, Simeon GILL The University of Manchester, Manchester, UK #33

14:56 Measuring the Human Body from a Single Camera, with Applications to the Clothing and Fashion Industry

Mohammad MONTAZERIAN, Frederic FOL LEYMARIE

Goldsmiths, University of London, Computing Dept., London, UK #11

virtual/online

15:18 BodiData's Measure.Match.Manage.™ Size-Matching Solution

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Bodidata Inc., St. Petersburg, FL, USA #35

virtual/online

Onsite Exhibitors Live Stream 6 - Track 3 Rose 14:00-15:15

14:00-14:30 Live Demonstration & Presentation from the Exhibition Room - tOOiin myeggO (France)





14:45-15:15 Live Demonstration & Presentation from the Exhibition Room - IBV (Spain)





15:40-16:10 Coffee Break - Foyer / 1-on-1 Networking

16:10-16:50 Panel Discussion - Room B1 / Track 2 Blue

Moderator: Dr Nicola D'APUZZO - 3DBODY.TECH Conference Director & Principal at Hometrica Consulting, Ascona, Switzerland

3D/4D Body Scanning & Processing - Quo Vadis? 16:10

Chris LANE - Co-Founder, CEO and CTO of 3dMD LLC, USA

Dr Laurent JUPPÉ - Co-Founder and CTO of VyoO, Canada

Stephen RAYMOND - CEO of Prism Labs Inc., USA

Maria LANDO - Director of Business Development at Optitex, Israel

Anita HAVELE - Executive Director of Web3D Consortium, USA

16:50-17:00 Short Break - Foyer / 1-on-1 Networking

17:00-17:44 Technical Session 13: Anthropometric & Sizing Surveys - Room B1 / Track 2 Blue

Session Chair: Prof Dr Sybille KRZYWINSKI - Adj. Prof. at Develop. & Assembly of Textile Prod. at ITM, TU Dresden, Germany

17:00 Customer Specific Size Surveys - Solutions and Experience

Matthew BENNETT

Human Solutions of North America Inc., Morrisville NC, USA #31



17:22 INDIAsize - Planning & Execution of National Sizing Survey of India

Noopur ANAND 1, Manoj TIWARI 2

1 Department of Fashion Technology, National Institute of Fashion Technology, New Delhi, India;

2 Department of Fashion Technology, National Institute of Fashion Technology, Jodhpur, India #38

17:45-18:00 **Closing Session**

Closing Speech from the Conference Director and Announcements for 3DBODY.TECH 2023 17:45 Nicola D'APUZZO, Hometrica Consulting, Switzerland

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

Icons / Symbols

Presentation/talk from GOLD / SILVER / BRONZE / VIRTUAL Exhibitor & Sponsor





Presentation/talk related to MOBILE APP solutions



Presentation/talk related to AM / 3D PRINT Additive Manufacturing & 3D Printing

Presentation/talk related to Metaverse & VR / AR Virtual & Augmented Reality



Live demonstration of 3D/4D equipment / solutions

GOLD Exhibitors & Sponsors

Size Stream (USA) www.sizestream.com

Size Stream is a leader in 3D body scanning technology located in the renowned Research Triangle Park in North Carolina. Founded in 2012, Size Stream is a wholly owned subsidiary of TAL Group. Apart from innovation in the 3D industry, the company focuses on providing services to several markets including apparel, weight-loss, and uniforms, covering a worldwide network of customers. EveryBODY connected.

SIZE STREAM

Avalution (Germany) www.avalution.net

Avalution scans, measures, analyses and digitalizes real people. 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. Avalution makes size & fit and ergonomics measurable for product development in various industries.



The Instituto de Biomecánica IBV (Spain) anthropometry.ibv.org

The Instituto de Biomecánica IBV supports innovative business models and research based on user anthropometry, by 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), smartphone 3D scanning technologies, and breakthrough 4D scanning technology.



tOOiin - myeggO (France) myeggo.com

tOOiin - myeggO has created and markets a 3D identity generator that automatically generates full-body photorealistic avatars that can be animated. These avatars or digital clones are generated by scanning real people in a revolutionary 3D photo booth. With their digital twins, users will be able to simulate physical transformations, change their look, and virtually try on some garments and accessories.



NeXR Technologies (Germany) www.nexr-technologies.com

NeXR Technologies is an extended reality (XR) first-mover with unique hardware and software expertise. NeXR Technologies offers photo-real 3D avatar creation, virtual body measurement, virtual fitting, motion capture, and virtual reality solutions. Whether fashion, retail, shows or fitness: NeXR is the full service provider for Virtual Reality, Extended Reality, Mixed Reality and the Metaverse.



ZOZO (Japan) corp.zozo.com

ZOZO owns and operates ZOZOTOWN, Japan's largest fashion e-commerce. Housed within ZOZOTOWN are ZOZOCOSME, ZOZOSHOES, ZOZOUSED for second-hand clothing, ZOZOVILLA for luxury & designer brands, YOUR BRAND PROJECT for consumers for creating their own personal fashion brand, WEAR for sharing stylings and outfits. ZOZO has also developed technology devices for body measurement, such as the ZOZOSUIT, ZOZOMAT, ZOZOGLASS.



Prism Labs (USA/Austria) www.prismlabs.tech

Prism Labs' cloud solution enables 3D body scanning and results tracking as easy as a 6-second spin in front of a single inexpensive depth camera. World class computer vision software is combined with cutting edge deep learning, camera technologies and over 300k real-world scans to push the boundaries of what is possible in 3D human reconstruction done with only a single inexpensive off-the-shelf depth camera.



VyoO (Canada) www.vyoo.ai

VyoO has been founded in 2017 with the vision of expanding human vision by harnessing the powers of computer vision and machine learning. The founders and their team create the world's most accurate 3D mobile technologies to capture, recognize, analyze & track, to enable eCom & healthcare retailers and manufacturers to optimize workflows & enhance their customer experience.



GOLD VIRTUAL Exhibitors & Sponsors

3dMD (USA/UK) 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 are supported by anthropometric measurement, projection and tracking apps to accelerate the development and training of innovative wearable technologies and devices that precisely adapt to their users' performance needs.



SILVER Exhibitors & Sponsors

IEEE-SA (USA) standards.ieee.org/industry-connections/3d/bodyprocessing.html

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.



Revopoint (China/USA) www.revopoint3d.com

Revopoint is a company that focuses on high-precision 3D vision technology innovation. Revopoint pursues ultimate innovation, prioritizing independent research and development of core technologies, and establishes a self-developed technology system ranging from micro-structured optical chip to high-precision 3D vision algorithms.

REVOPOINT

botspot (Germany) botspot.de

Shifting the status quo with innovative 3D scanning solutions worldwide. 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.



SILVER Exhibitors & Sponsors (cont.)

Made To Form (Switzerland) madetoform.ch

Made To Form software Bespoke 4D is the culmination of decades of research and development in the science of fit. The originality of the MTF technology lies in the direct creation of the garment in 3 dimensions based on the variable body postures, shape and characteristic points, but above all based on its ease of movement, hence the 4th dimension. The clothes created are therefore in 3 and 4 dimensions.



ImFusion (Germany) www.imfusion.com

ImFusion offers software solutions and R&D services for 3D scanning, computer vision and medical image computing. 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 such as the Intel RealSense and Orbbec Astra are directly supported.



TechMed 3D (Canada) techmed3d.com

TechMed 3D offers human body measuring software for the O&P industry. TechMed 3D is committed to providing the most accurate, affordable, accessible, and easy to use 3D data acquisition solution. With TechMed 3D's solution, you'll enjoy the best human body scanning experience on the market.



ESENCA (UK) esenca.app

ESENCA drastically increases fashion eComms' profits by using AI to provide sizing recommendations to their customers. ESENCA's tools embed into online shop's product pages, run directly in the browser, extract more than 100 body measurements, build the shopper's 3D model and enable them into a virtual try-on experience, and provide them with sizing, fitting and styling recommendations.



BRONZE Exhibitors & Sponsors

Six Atomic (Singapore) <u>www.sixatomic.com</u>

Six Atomic pioneers automation tech for the apparel industry, enabling a real-time supply chain. Six Atomic's capabilities cover rapid product development, measurement and size prediction and validation, pattern grading, automated 3D visualization, and production integration. Six Atomic can predict over 50 measurements with 97%+ accuracy, from basic inputs like height and weight.



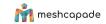
Shape Analysis (UK) shapeanalysis.com

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.



Meshcapade (Germany) meshcapade.com

Meshcapade is a startup creating realistic human avatars for use in research, apparel, biomechanics, virtual reality and film. The nuances of human shape and movement are modeled by using machine learning and computer vision. Meshcapade builds automation from 3D & 4D scans, RGB-D sequences, Mocap, IMU and image data. Meshcapade brings realistic human models to life in everyday environments.



BASIC Sponsors

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.



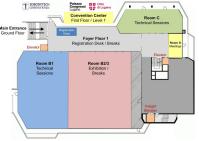
3DBODY.TECH Conference & Expo Venue: Lugano Convention Center + Online Conference Platform

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

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

The 3DBODY.TECH 2022 online conference platform will be accessible to all onsite and online attendees, speakers, exhibitors.







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