

# DSC



16 - 18 September 2026

## GUIDEBOOK



**DSC 2026** EUROPE XR

Driving Simulation & eXtended Reality Conference & Exhibition

Palais des Congrès, Antibes | France

Organized by

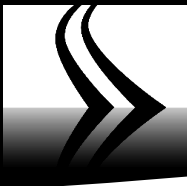


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# DSC 2026 EUROPE XR

Driving Simulation & eXtended Reality Conference & Exhibition

The Driving Simulation Conference gathers driving simulation specialists from the industrial and academic communities as well as commercial simulation providers. This 25th edition follows that of 2025, held in Stuttgart, with about 300 participants. The exhibition is coming back towards more than 40 professional exhibitors and up to 300 on site participants. With about 80 speakers in scientific and industrial product solution sessions, keynotes, tutorials and round tables, you will get the latest trends in XIL (MIL, SIL, HIL, DIL, VIL, CIL) and XR simulation for ADAS, automotive HMI and driving simulation design, motion sickness and rendering, as well as connected and autonomous vehicle verification and validation.

Themes include state of the art in driving simulation technology, research and developments, extended with progressively emerging virtual and augmented reality (XR) developments. Human factors and motion rendering nevertheless will stay as now traditional axes of the conference.

**You are welcome to the DSC 2026 Europe Conference and exhibition, organized by the Driving Simulation Association, in cooperation with Arts et Métiers Institute of Technology and Gustave Eiffel University and with the support of Renault, SIA and Laval Virtual, held on September 16-18 in Antibes!**



*The way for tomorrow's vehicle*

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## DSC 2026 Exhibition

We are committed to bringing you the best opportunity to meet and network with **many customers, prospects and partners** in the field of driving simulation.

**Authors, keynote speakers and delegates** are attending this conference with the common aim of hearing about the latest developments in the field and will be keen to learn about your technology and services. The conference is expected to attract more than **300 attendees**, which will ensure that the event has the buzz you need to generate interest in your products.

*The DSC Organizing Team wishes to all participants and exhibitors a great time at the Driving Simulation Conference Exhibition 2026!*



Palais des Congrès, Antipolis  
60 Chemin des Sables, 06160 Antibes - France

# Organizing Committee



Andras Kemeny | *Conference chair*

President, Driving Simulation Association  
Member of Board of Directors, ASAM



Florent Colombet | *Program Co-Chair*

Treasurer of Driving Simulation Association  
Innovation Project Manager, Renault



Jean-Rémy Chardonnet | *Program Co-Chair*

Driving Simulation Association  
Professor, Arts et Métiers



Clément Bourhis | *Conference Assistant*

Driving Simulation Association



Bilal Kasim | *Conference Assistant*

Driving Simulation Association



Elias Maillot | *Conference Assistant*

Driving Simulation Association



Lucile Frugier | *Conference Assistant*

Driving Simulation Association

## Scientific Committee

*The scientific committee is composed of recognized academics, OEM, Tier 1 or Standardisation body experts involved in driving simulation research activities in their organisations. Being member of the Scientific Committee involves also a commitment to avoid using his or her committee role in any individual consultancy activity, which may influence his or her objectivity in reviewing or any other undertaken committee task.*

### Chairman

Andras Kemeny	Driving Simulation Association (France)
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### Scientific Committee Members

Mohammad Bahram	BMW Group R&T (Germany)
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Gerd Baumann	FKFS (Germany)
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Klaus Bengler	Technical University Munich (Germany)
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Jost Bernasch	The Virtual Vehicle (Austria)
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Jelte Bos	TNO (The Netherlands)
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Heinrich H. Bülthoff	Max Planck Institute (Germany)
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Frank Cardullo	State University of NY (United States)
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Viola Cavallo	University of Gustave Eiffel (France)
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Jean-Rémy Chardonnet	Arts et Métiers Institut of Technology (France)
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Florent Colombet	Renault (France)
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George Drettakis	INRIA (France)
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Magnus Eek	VTI (Sweden)
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# Scientific Committee

## Scientific Committee Members

Stéphane Espié	Université of Gustave Eiffel (France)
Zhou Fang	Renault (France)
Martin Fischer	
DLR (Germany)	Polytechnic University of Milan (Italy)
Jens Häcker	DHBW Stuttgart (Germany)
Siddartha Khastgir	University of Warwick (UK)
Joseph K. Kearney	University of Iowa (United States)
Franck Mars	CNRS (France)
Philippe Mathieu	University of Lille (France)
Frédéric Mérienne	Arts et Métiers (France)
James Oliver	Iowa State University (United States)
Jean-Christophe Popieul	Hauts-de-France Polytechnic University (France)
Paolo Pretto	Virtual Vehicle (Austria)
Günther Prokop	Technische Universität Dresden (Germany)
Richard Romano	University of Leeds (United Kingdom)
Joost Venrooij	BMW Group (Germany)

# Technical Committee

*The Technical committee is composed of recognized industrial experts or managers of OEM, Tier 1 or research institutes involved in the driving simulation industrial ecosystem. Being member of the Technical Committee involves also a commitment to avoid using his or her committee role in any individual consultancy activity, which may influence his or her objectivity in reviewing or any other undertaken committee task.*

## Chairman

Luz Amanda Garcia Galeano EBUSCO (Netherlands)

## Technical Committee Members

Omar Amhad NADS (United States)

Florent Colombet Renault (France)

David Defianas Stellantis (France)

Marius Dupuis ASAM (Germany)

Vincent Honnet SystemX (France)

Andras Kemeny Driving Simulation Association (France)

Martin Peller BMW (Germany)

Stéphane Régnier Renault (France)

Martin Sevenich Continental (Germany)

Georg Stettinger Infineon (Germany)

Sebastian Wagner BMW (Germany)

# OEM Keynote Speakers

Keynotes are historically inspiring talks given by eminent scientists in the field of driving simulation, completed now by important industrial executives.



**Alessandro Salgarello** | *Chassis Advanced Engineer, Hyundai, Europe*  
**Pilyoung Jeoung** | *Senior Research Engineer, Hyundai, Korea*

**"Engineering Emotion: Driving Simulation for Efficient and Flexible Virtual-Driven Development at Hyundai Motor Group"**

*How driving simulation is helping Hyundai Motor Group to integrate subjective driver feedback with objective performance metrics, while improving process efficiency. The presentation highlights how a robust and flexible virtual-driven development workflow enables simultaneous, joint development between NamYang R&D (Korea) and HMETC (Europe).*



**Stéphane Régnier** | *Expert Leader Immersive Simulation and Virtual Reality, Renault, France*

**"The convergence of XR and driving simulation for customer-centric vehicle"**

*This keynote highlights the growing convergence between XR and driving simulation, combining immersive visualization and dynamic vehicle behavior to support customer-centric vehicle design. It shows how this unified approach enables earlier, more holistic evaluation of the customer experience across the development process.*

1:00 pm

## Registration & Coffee

*2nd floor*

2:00 pm

## Special Session

*Antipolis Auditorium*

**Standards for driving and massive simulation of ADAS and autonomous vehicles in vehicle engineering design and regulation.**

**Moderator - Marius Dupuy**

*(ASAM, Germany)*

**Standards to harmonise the scenario-based  
ASD Safety demonstration.**

**Emmanuel Arnoux**

*(Renault, France)*

**Virtual Validation Toolchains and the role of standards**

**Antje Rorhbeck**

*(Synopsis, Germany)*

**ASAM OpenX as the Backbone for  
Credible Perception Sensor Simulation**

**Philipp Rosenberger**

*(Persival, Germany)*

3:45 pm

## Break

4:00 pm

## Round Table

*Antipolis Auditorium*

**The future of XR helmets vs. multi-view CAVEs  
in driving simulation.**

Moderator - **Jean-Rémy Chardonnet**  
*(Arts et Métiers Institute of Technology, France)*

4:45 pm

## Special Session

*Antipolis Auditorium*

**Digital twin XR driver station for driving simulators**

Moderator - **Andras Kemeny**  
*(Driving Simulation Association, France)*

**Usability of a mixed reality head mounted display  
in a static driving simulator**

**Eva Morgand, Florent Colombet; Nicolas Mignotte, Javier Posselt**  
*(Renault, France)*

**Technical evaluation of vehicle interior lighting using Mixed  
Reality in driving simulation**

**Henrik Gommel**  
*(GOTECH, Germany)*

5:30 pm

## Closing

8:00 am

## Registration & Coffee

*2nd floor*

8:40 am

## Conference Opening

*Antipolis Auditorium*

**Andras Kemeny**, Conference Chair

(President, Driving Simulation Association

Member of the Board of Directors, ASAM)

**“XR based Driving Simulation for Vehicle Engineering Design,  
Testing and Regulation“**

9:00 am

## Keynote

*Antipolis Auditorium*

### Scientific

#### Paper Session

*Antipolis Auditorium*

*Perception & Human Factors*

**Advanced Road Feedback in  
Driving Simulators: The Role  
of Physical Tire Models**

**Maximilian Böhle**

(Technical University of Berlin, Germany)

**Benjamin, Rieff**

9:25 pm

### Product

#### Solution Session

*Fitzgerald Room*

*DiL Simulation*

**From On-Road Testing to Ride  
Replay: Validation of  
Simulator-Based Ride Comfort  
Assessment using a  
Specialized Driving Simulator**

**Stefan Jeindl**

(Magna Steyr Fahrzeugtechnik, Graz, Austria)

Hofmaninger, Philipp; Kovacevic, Paul;  
Nolan, Leo; Farmer, Gavin; Magosi, Zoltan  
Ferenc; Koglbauer, Ioana Victoria;  
Eichberger, Arno

9:50 pm

*Perception & Human Factors*

**Occupant behaviour, cognition, and Human-Machine Interaction in Level 3 Autonomous Vehicle driving simulator**

**Ali Olayan**

(Expleo Group, France)

Chardonnet, Jean-Rémy;  
Sandoz, Baptiste

*DiL Simulation*

**Full-Spectrum Driver-in-the-Loop Simulation for Multi-Attribute Vehicle Development: HexaRev and HyperDoc**

**Nadia Hausner**

(VI-grade, Germany)

10:15 pm

**Effects of Cognitive Load, Age and Gender on Driver Control Parameters (Short)**

**Víctor Nalda-Tárrega**

(Instituto Biomecánica Valencia, Spain)

Belda-Lois, Juan-Manuel;  
Mateo-Martínez, Begoña

**An ISO Initiative Towards Standardizing Driving Simulators (Short)**

**Chantal Himmels  
(BMW AG, Germany)**

Chida, Tomoya; Fischer, Martin;  
Fujimoto, Masaki; Kuwabara, Kazuki;  
Kyogoku, Hitoshi; Lindner, Johannes;  
Muramatsu, Hideyuki; Ruß, Fabian;  
Marcus, Schmitz; Martin, Sevenich;  
Atsushi, Tsubouchi;  
Stefan, Vorderobermeier

10:30 am

**Break**  
*2nd floor*

**Scientific**

**Paper Session**

*Antipolis Auditorium  
Motion Cueing & Control & AI*

11:00 am

**Product  
Solution Session**

*Fitzgerald Room  
ADAS*

**A Model-Predictive Control Algorithm for Matched Lateral/Yaw Motion**

**Maurice Kolff**

(Delft University of Technology, The Netherlands)

POOL, Daan M.; RICCIARDI, Vincenzo;  
HEIDERICH, Martin; ZANTNER, Frank;  
SHYROKAU, Barys

**Scenario-Based Approach in System Engineering: Toward an Assessment of Coverage**

**Christophe Bohn**

(IRT SysteX, France)

REVERT, Erwan; ADJED, Faouzi

11:25 am

**Learning-Based Acceleration Prediction for Real-Time Model Predictive Motion Cueing**

**Keno Pape**

(Paderborn University, Germany)

MALENA, Kevin; TIMMERMANN, Julia;  
TRÄCHTLER, Ansgar

**ASAM QSQ: Quantifying Simulation Quality for Credible Virtual Validation**

**Yash Shah**

(ASAM e.V, Germany)

SÁNCHEZ LÁZARO, Diego

11:50 am

**Comparison of Cost Functions for Automatic Motion Cueing Algorithm Parametrisation (Short)**

**Craig Brown**

(BrownSim Ltd, London, UK)

SCHLUETER, Marco; HOLZAPFEL, Christian

**From Concept to Validation: Mastering Scene and Scenario Fidelity with the RoadRunner Product Family (Short)**

**Simone Heammerle**

(MathWorks, Germany)

HAFEMANN, Philipp

# Program

## Motion Cueing & Control & AI

12:05 am

**Effects of motion cueing and adaptive procedure on acceleration JND estimation (Short)**

**Erik Gustaf Lilljebjörn**  
(Swedish National Road and Transport Research Institute, Sweden);

KHARRAZI, Sogol; ÅSLUND, Jan

## ADAS

**From Map Data to Simulation: An Automated Pipeline for 3D Scene Map and OpenDRIVE Generation for ADAS and AV Validation (Short)**

**Kussmaul Stephan**  
(TrianGraphics GmbH, Germany)

NIERENZ, Mirco

12:20 am

**Effects of motion cueing and adaptive procedure on acceleration JND estimation (Short)**

**Erik Gustaf Lilljebjörn**  
(Swedish National Road and Transport Research Institute, Sweden);

KHARRAZI, Sogol; ÅSLUND, Jan

**From Map Data to Simulation: An Automated Pipeline for 3D Scene Map and OpenDRIVE Generation for ADAS and AV Validation (Short)**

**Kussmaul Stephan**  
(TrianGraphics GmbH, Germany)

NIERENZ, Mirco

12:35 am

## Lunch

2nd floor

2:00 pm

## Industrial Keynotes

Antipolis Auditorium

3:00 pm

## Industrial Pitches

Antipolis Auditorium

**Scientific**

**Paper Session**

*Antipolis Auditorium  
Perception & Human Factors II*

4:00 pm

**In-car occupant state monitoring using RGB- and IR-images – carsickness as an example**

**Jelte E. Bos**  
(TNO, Netherlands)

LOUVENBERG, Susanne; SOUMAN, Jan L.

**Product**

**Solution Session**

*Fitzgerald Room  
HiL DiL Simulation design*

**Extending a Modular Simulation Framework to Support Immersive Virtual Reality for Human-in-the-Loop Driving Studies**

**Peter Baker**  
(University of Warwick, United Kingdom)

MITCHELL, Joseph; CHODOWIEC, Emil;  
ZHANG, Xizhe; KHASTGIR, Siddhartha;  
JENNINGS, Paul

4:25 pm

**How We Roll: Validating Cycling Simulation Against Real-Life Riding**

**My Weidel**  
(Swedish National Road and Transport Research Institute, Sweden)

Ochel, Lennart; Sliacan, Jakub;  
Kircher, Katja

**Development Environment for the Validation of Steer-by-Wire Systems**

**Thomas Karasiewicz**  
(IPG Automotive France SARL, France)

Ahlert, Alexander; zur Heiden, Martin;  
Schmidt, Philipp; Kemper, Henning

## *Perception & Human Factors II*

4:25 pm

### **Simulation-Based Human-in-the-Loop Assessment of Shifting Comfort in Two Speed Electric Vehicles**

**Omar Fahmy**

(Institute for Mechatronical Systems, Technical University Darmstadt, Germany)

Kaskaya, Safa; Rinderknecht, Stephan

## *HiL DiL Simulation design*

### **A Distributed Driving Simulation Framework utilizing Data Distribution Service**

**Christian Bauer**

(University of Iowa, United States of America)

Schwarz, Chris

5:15 pm

### **Human Vision Driven Standard for Automotive Lit Surfaces (Short)**

**Victor Loya Garnica**

(Ansys (part of Synopsys), United States of America)

### **A HiL-Driven Brake Pedal Feedback Architecture for Driver-in-the-Loop Simulation (Short)**

**Raphael Groß**

(Munich University of Applied Sciences, Germany)

Tworek, Anton; Riegert, Bernhard; Pfeffer, Peter E.

5:30 pm

## Closing

8:00 pm

## Cocktail Party

8:00 am

## Registration & Coffee

2nd floor

9:05 am

## Keynote

Antipolis Auditorium

### Scientific

#### Paper Session

Antipolis Auditorium  
*Virtual Reality for  
Driving Simulation*

**Assessing the Sensitivity  
of a VR Driving Simulator to  
Single-Day Highway Work  
Zones**

**Paolo Pretto**

(Virtual Vehicle Research, Austria)

PRIOR, Manuela; JUKIC, Mateo; GSELL-  
MANN, Inge; MUIK, Thorsten; ROSEN-  
BERGER, Manfred; HAGER, Christina;  
MALETZKY, Alexander

9:35 am

### Product

#### Solution Session

Fitzgerald Room  
*Sensors in  
Driving Simulation*

**Active Infrared with SE-RAY-IR  
– SCANr Studio**

**Florian Faucher**  
(OKTAL-SE, France)

BOUDET, Antoine; NGUYEN, Thomas

10:00 am

**Expectation-Driven Diffe-  
rences in Pedestrian Gap Ac-  
ceptance toward Automated  
Vehicles (Short)**

**Melina Bergen**

(German Aerospace Center (DLR), Germany)

Temme, Gerald;  
Einhäuser-Treyer, Wolfgang;  
Fischer, Martin

**A Unified Phenomenological  
Sensor Model for Real-Time  
Raw Data Generation in Au-  
tonomous Driving Simulation  
(Short)**

**Ahmed Youssif**

(Valeo Schalter und Sensoren GmbH, Germany)

ELSOBKY, Mohamed

*Virtual Reality for Driving Simulation*

10:15 am

**Metaverse: A Validation Approach for Bridging the Gap between Simulation, Scaled Field Tests and Field Tests (Short)**

**Raphael Kling**

(Karlsruhe Institute of Technology, Germany)

WILD, Manuel; WIESCHOLLEK, Marvin; CICHON, Martin

*Sensors in Driving Simulation*

**Radar sensor simulation validation (Short)**

**Florian Faucher**

(OKTAL-SE, France)

SERVEL, Alain

10:30 am

**Break**  
*2nd floor*

**Scientific Paper Session**  
*Antipolis Auditorium*  
*Motion Cueing & Control & AI*

11:00 am

**Physics-Informed Neural Network-based Motion Cueing Algorithm**

**Robert Jacumet**

(BMW AG, Germany)

DUELL, Simon; WAGNER, Sebastian; SCHWIENBACHER, Markus; LEIBOLD, Marion

**Scientific Paper Session**  
*Fitzgerald Room*  
*Scenario Modeling and Authoring Tools*

**A Unified Framework for Scenario Coverage Estimation and Representative Selection in Simulation-Based Testing of Automated Vehicles**

**Anasse Essalih**

(Vedecom, France)

ARAB, Abdel-Hakim; DURVILLE, Laurent; RAHAL, Mohamed-Cherif; LEBBAH, Mustapha; KHERJI, Walid; HADJ SELEM, Fouad

## Motion Cueing & Control & AI

11:25 am

### Enhancing Longitudinal Motion Cueing via AI-Based Driver Behavior Prediction

**Zhou Fang**  
(Renault, France)

DE-OLIVEIRA, Fabien; QIU, Dongcheng; SOMMERVOGEL, Matthieu; COLOMBET, Florent; REGNIER, Stéphane

## Scenario Modeling and Authoring Tools

### Creating OpenDRIVE maps for 3D models using the ODRoNeS plugin for Blender

**Albert Solernou**  
(University of Leeds, United Kingdom)

Garcia de Pedro, Jorge; Chao, Hsuan

11:50 am

### Evaluating Data-Driven Architectures for High-Fidelity Modeling of Driving Simulator Motion (Short)

**Philipp Legran**  
(RWTH Aachen University, Germany)

USS, Fabian; Eckstein, Lutz

### Applying a Representativity-Based Model Selection Framework to an Industrial ADAS Use Case (Short)

**Yara Hallak**  
(Renault Group, TCR, Guyancourt, France)

Saab, Layal; Blouin, Dominique; Pautet, Laurent; Laborie, Baptiste

12:05 am

**Lunch**  
2nd floor

2:00 pm

## Automobile OEM Keynote

*Antipolis Auditorium*

### “Engineering Emotion: Driving Simulation for Efficient and Flexible Virtual-Driven Development at Hyundai Motor Group”

**Alessandro Salgarello** (Chassis Advanced Engineer at Hyundai, Europe)  
& **Pilyoung Jeong** (Senior Research Engineer at Hyundai, Korea)

2:30 pm

### Automobile OEM Keynote

*Antipolis Auditorium*

**“The convergence of XR and driving simulation for customer-centric vehicle Design”**

**Stéphane Régnier** (Expert Leader Immersive Simulation and Virtual Reality at Renault, France)

### Scientific Paper Session

*Antipolis Auditorium  
Simulation design*

**CycloCARLA: Design, Implementation, and Evaluation of a High-Fidelity Bicycle Simulator (Short)**

**Patrick Rebling**

(Karlsruhe University of Applied Sciences, Germany)

RAUCH, Yannick; SANDER, Nico;  
NENNINGER, Philipp; KRIESTEN, Reiner

3:00 pm

### Hybrid Scientific Paper/Product Solution Session

*Fitzgerald Room  
AI & Machine learning for  
Scenario generation*

**Open-Source Scenes and Scenarios for various Intelligent Transportation Systems Applications (Short)**

**Kevin Malena**

(Paderborn University, Germany)

Rizk, Abdelmawla; Fittkau, Niklas;  
Gausemeier, Sandra; Trächtler, Ansgar

3:15 pm

**A Framework for Describing and Controlling Surrounding Traffic in Driving Simulator**

**Sven Tarlowski**

(ika RWTH Aachen, Germany)

Legran, Philipp; Eckstein, Lutz

**AI-based simulation scenario generation from the ADScene complex scenarios**

**Sofiane Sadat**

(Renault, France)

MOHELLEBI, Hakim; Sentouh, Chouki; VAILLANT, Eric; ARNOUX, Emmanuel; REGNIER, Stephane; Popieul, Jean-Christophe

*Simulation design*

3:40 pm

**A Low-Cost Driving Simulator Platform for Integrated Vehicle Comparison, HIL testing and Public Engagement (Short)**

**Stefan Haehnlein**

(Offenburg University of Applied Sciences, Germany)

FRUEH, Judith; RONECKER, Mirko;  
KLOEFFER, Christian

*AI & Machine learning  
for Scenario generation*

**Deontic: An AI-Based Validation Intelligence Layer for Regulation-Ready Autonomous Driving (Short)**

**Stephen Lernout**

(Deontic, Belgium)

3:55 pm

**Closing**

*Antipolis Auditorium*

4:00 pm

**End**

### **A Low-Cost Driving Simulator Platform for Real-Time Vehicle Comparison, Powertrain Test Bench Integration and Public Engagement**

*HAEHNLEIN, Stefan (Offenburg University of Applied Sciences, Germany);  
FRUEH, Judith; RONECKER, Mirko; KLOEFFER, Christian*

### **Absolute Accuracy Validation of a Perpendicular Distance Measurement Method in Unity3D: Implications for Virtual Reality Road Safety Studies**

*VAN DER STELT, Machiel (University of Western Australia, Australia);  
Braunl, Thomas; Roberts, Paul*

### **Adaptive Cruise Control in a Mixed Reality Driving Simulator: Functional Validation and User Perception**

*Kovacevic, Nedim (Technische Universität Berlin, Germany);  
Ge, Zizun; Tekcan, Cagdas; Stark, Rainer*

### **Connecting a Bicycle Unity3D VR Simulator with a ScannerStudio Car VR Simulator: Steps Toward Real-Time Multi-Actor Road Safety Studies**

*VAN DER STELT, Machiel (University of Western Australia, Australia);  
Braunl, Thomas; Roberts, Paul*

### **Acoustic measures to increase immersion in static driving simulators**

*DÜSELDER, Arne (fka GmbH, Germany);  
DUTE, Marius*

### **Designing a Balanced Order Driving Simulator Study with OpenSCENARIO**

*ANDERSSON, Anders (Swedish National Road and Transport Research Institute, Sweden)*

**Absolute Accuracy Validation of a  
Perpendicular Distance Measurement Method in Unity3D:  
Implications for Virtual Reality Road Safety Studies**

*VAN DER STELT, Machiel (University of Western Australia, Australia);  
Braunl, Thomas; Roberts, Paul*

**Improving Motion Cueing with High Shelf Filters**

*Brown, Craig (BrownSim Ltd, London, United Kingdom);  
Smith, Edward; Garrett, Nikhil; Williams, Chris*

**Fatigue-Inducing Scenario Design for Truck-Driving Simulation:  
From Evidence to Implementation**

*Fonseca, Tiago (CITTA, Faculdade de Engenharia, Universidade do Porto, Portugal);  
Costa Botelho, Telmo; Pedro Duarte, Sérgio; Lobo, António; Ferreira, Sara*

**Assessing Communication Behaviors between Excavator Operators,  
Human Workers and Assistance Systems  
on a Virtual Construction Site**

*REINHARD, René (Fraunhofer Institute for Industrial Mathematics ITWM, Germany);  
HEKELE, Franziska; SCHNEIDER, Jonathan; NICOLAI, Tim; EMMERICH, Sebastian;  
BURGER, Michael*

### **Virtual Reality Driving Simulator for Education – Form Factor, Cybersickness and Perception**

*Loeb, Helen (Jitsik, United States of America);  
Smagulova, Ayagoz; Rosenberg, Matan; De La Pena, Eduardo;  
Sniegs, Oskars*

### **Test Management Process within SCANeR and the 3DEXPERIENCE Platform**

*CORBIER, Franck (Dassault Systèmes, France);  
LOEMBE, Sandrine; GROS, Reine*






### **Transforming Simulation with Reality-Based Neural Rendering & World Models**

*Kart, Tolga (Third Dimension AI, United States of America);  
Sokolski, Piotr*

DSC Europe 2026 XR Exhibition FloorPlan

Espace Gould



	6m <sup>2</sup> Booth		Buffet Table
	9m <sup>2</sup> Booth		Attendee Bar Table
	12m <sup>2</sup> Booth		

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### Platinum Sponsor

**AVSIMULATION**

AVSimulation is a leading provider of simulation solutions for the automotive and mobility industry.

With SCANeR™, our comprehensive and modular platform, engineers can design, test, and validate ADAS, autonomous driving systems, and human factors studies in highly realistic virtual environments.

Combined with a complete range of driving simulators and tailored engineering services, AVSimulation helps accelerate development, reduce costs, and enhance safety and efficiency across the entire V-cycle.

Through innovation, realism, and expertise, we support OEMs, Tier-1 suppliers, researchers, and universities worldwide in shaping the future of mobility..

[www.avsimulation.fr](http://www.avsimulation.fr)

### Diamond Sponsor

**Renault  
Group**

[www.renaultgroup.com](http://www.renaultgroup.com)



Premium Sponsor

Dynisma is recognised as one of the leading developers of high-performance motion simulators for automotive engineering and professional motorsport. Its full-motion Driver-in-the-Loop simulators are delivered as turnkey, software-agnostic systems, enabling organisations to integrate preferred vehicle models, simulation toolchains and visualisation environments while achieving accurate correlation to real-world vehicle behaviour. Dynisma systems support digital twin validation, reduce reliance on physical prototypes and accelerate complex vehicle development programmes.

At the core of every system is Dynisma's patented Motion Generator (DMG) technology, which delivers sub-5ms latency and high-bandwidth motion exceeding 100Hz from primary actuation. This enables engineers and drivers to experience vehicle dynamics, ride and vibration characteristics with the realism and repeatability required for confident development decisions. Dynisma was also the first to introduce unlimited yaw capability to the market. While unlimited yaw is now considered a necessity for high-end simulation, it is Dynisma's unique combination of unlimited yaw with ultra-low latency, high bandwidth and isotropic motion synchrony that sets its systems apart, ensuring motion cues remain natural, uninterrupted and true to real-world driving.

Based at a Technology and Manufacturing Campus in Bristol, UK, Dynisma's team of more than 150 specialists serves a highly discerning global customer base across automotive and motorsport programmes. Applications include vehicle dynamics development, ride and NVH studies, tyre and braking evaluation, powertrain and energy management, ADAS and autonomous systems validation, and human-machine interface development.

Dynisma simulators are trusted by teams across Formula 1, Formula 2, Formula E, the FIA World Endurance Championship and IndyCar, as well as global automotive manufacturers and research institutes. The company's product range includes the DMG-1 and DMG-360XY motion platforms, alongside the reveal of a new compact simulator, DMG-S, expanding access to high-fidelity motion simulation. Dynisma was founded in 2017 by Ash Warne, who previously led simulator development programmes at McLaren Formula 1 Team and Scuderia Ferrari, bringing Formula 1-derived motion expertise to the next generation of driving simulation. Dynisma has received multiple awards recognising its innovation, growth and contributions to advanced engineering technology.

Visit Dynisma at Booth #1 to speak with one of our engineering specialists about your application requirements or arrange a demonstration to experience Dynisma motion first-hand.

[www.dynisma.com](http://www.dynisma.com)

## Sponsors

### Gold Sponsor



MathWorks is the leading developer of mathematical computing software. MATLAB, the language of engineers and scientists, is a programming environment for algorithm development, data analysis, visualization, and numeric computation. Simulink is a block diagram environment for simulation and Model-Based Design of multidomain and embedded engineering systems. Engineers and scientists worldwide rely on these products to accelerate the pace of discovery, innovation, and development in automotive, aerospace, communications, electronics, industrial automation, and other industries. MATLAB and Simulink are fundamental teaching and research tools in the world's top universities and learning institutions. Founded in 1984, MathWorks employs more than 6,000 people in 34 offices around the world, with headquarters in Natick, Massachusetts, USA.

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### Silver Sponsor



ASAM e.V. is a not-for-profit organization that promotes standardization in automotive development, testing, validation and diagnostics. ASAM 'accelerates engineering for mobility' by providing a platform and bringing experts together to agree on standards, exchange information, and to allow collaboration in a legal and anti-trust compliant way.

ASAM standards span a wide range of use cases in automotive development, test, and validation. They define file formats, data models, protocols, and interfaces. All ASAM standards aim to enable easy exchange of data and tools within and across tool chains. They are applied worldwide.

ASAM continues to strengthen its focus on simulation-based testing and validation for ADAS and automated driving systems. The well-established ASAM OpenDRIVE and ASAM OpenSCENARIO standards, complemented by ASAM OpenCRG, ASAM OSI and ASAM OpenLABEL, provide the foundation for virtual testing. In 2025, two new standards were added to enhance the ecosystem:

- ASAM OpenMATERIAL 3D 1.0.0, the first open standard for defining and exchanging 3D material and geometry data. It enables consistent definitions of physical material properties and standardized 3D model structures for more accurate simulations.

- ASAM OpenODD 1.0.0 specifies a standardized data model to describe the operational domain (OD), current operational domain (COD), and the operational design domain (ODD) for ADAS, DCAS and ADS. It provides a technology-independent data model in UML, defining how taxonomies and related concepts are structured and interconnected, and details how these elements are represented and exchanged.

Learn more about the full ASAM OpenX portfolio at our booth.

[www.asam.net](http://www.asam.net)

## With the cooperation and support of



Arts et Métiers Institute of Technology is a French « Grande Ecole d'Ingénieur » founded in 1780 specializing in mechanical, industrial and energy engineering. The Laboratory of Engineering in Cyberphysical Systems (LISPEN) has an education and research team specialized in XR for 25 years with extensive work on individualized interaction in immersive environments, cybersickness reduction and perception issues. The team has large immersive facilities including a 5-sided CAVE, head-mounted displays, multi-sensory interaction devices, physiological and behavioral measurement devices. LISPEN has also an activity in driving simulation, with facilities including dynamic and static simulators, coupled with immersive technologies, and addressing scientific issues related to HMI, simulator sickness, perception and motion cueing.

[www.institutimage.ensam.eu](http://www.institutimage.ensam.eu)



The Driving Simulation Association (DSA) aims to promote and encourage driving simulation and XR within all aspects: research, development, applications, and products, facilitating communication between individuals and academic as well as industrial organizations and contributing to the organization of scientific conferences. DSA is also proposing dedicated services in the use of driving simulation and XR.

[driving-simulation.org](http://driving-simulation.org)



Since 1927, the "Société des Ingénieurs de l'Automobile" (Automotive Engineers Society) brings together all the specialists and enthusiasts of the automotive industry and its technologies. It has more than 1,800 individual or group and relies on a database of more than 18,000 car experts and our aim is to promote the development and knowledge sharing of engineers, managers and technicians in the automotive field.

SIA is built on its diverse communities of experts covering all areas of new technologies in product engineering as well as quality, purchasing and production from the automotive and reflects on the vast stakes of the second automotive revolution, with the 21st century in the spotlight: autonomous vehicle, hyper connected vehicle, revolution towards affordable zero emission and electrification, Big Data and cybersecurity or the emergence of artificial intelligence.

SIA is renowned in the world of automotive engineering for its conferences, workshops and congresses of international level through more than thirty annual scientific meetings.

SIA participates actively in the French automotive industry in connection with the main professional organizations and on an international level as a member of the FISITA.

[www.sia.fr](http://www.sia.fr)



The Gustave EIFFEL University was born out of the merger of Université Paris-Est Marne-la-Vallée and IFSTTAR, the Institute for European Research on Cities and Regions, Transport and Civil Engineering. It includes a school of architecture, EAV&T, and three engineering schools, EIVP, ENSG Géomatique and ESIEE Paris. By creating for the first time in France a three-way partnership between a university, research organisations and schools of architecture and engineering , it will have the specific purpose of fostering national and international partnerships to meet the major societal challenges generated by the profound changes in urban areas, which are already home to 55% of mankind.

[www.univ-gustave-eiffel.fr](http://www.univ-gustave-eiffel.fr)

3



Anible Motion creates and deploys a wide range of Driver-in-the-Loop (DIL) simulators around the world for all types of vehicles, driving scenarios, experiments and product development aims. From small desktop systems to full size dynamic simulators, Anible Motion's products deliver class leading virtual test driving experiences. Featuring advanced computational and mechanical performance capabilities, they create compelling virtual worlds for drivers and product development engineers.

[www.ansiblemotion.com](http://www.ansiblemotion.com)

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AVES Reality generates semantic 3D maps from geospatial data to make simulation of physical AI more efficient and globally scalable. Their software platform AVES Launcher turns any place on earth into a scalable 3D digital twin world including HD-roadmaps. AVES' 3D maps are ready for simulation, testing, and virtual V&V as they integrate with various market leading simulation tool providers.

[www.avesreality.com](http://www.avesreality.com)



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AVSimulation is a leading provider of simulation solutions for the automotive and mobility industry.

With SCANeR™, our comprehensive and modular platform, engineers can design, test, and validate ADAS, autonomous driving systems, and human factors studies in highly realistic virtual environments.

Combined with a complete range of driving simulators and tailored engineering services, AVSimulation helps accelerate development, reduce costs, and enhance safety and efficiency across the entire V-cycle.

Through innovation, realism, and expertise, we support OEMs, Tier-1 suppliers, researchers, and universities worldwide in shaping the future of mobility..

[www.avsimulation.fr](http://www.avsimulation.fr)

How do you WIN BIG with motion simulators WITHOUT massive capital investment? What separates ELITE simulator programs from the rest?

You'd be forgiven for thinking that, so long as your motion simulator has enough performance in terms bandwidth, travel, latency, cross-talk and so forth, VALUE GENERATION should be easy.

And the newer the simulator, the better... right?!

Well, maybe...

The reality of motion simulators is that they are robotic systems. Performance, therefore, may be impeded, or maximized, by their 'intelligence'. More specifically, its MOTION CUEING algorithm and its parameterization in day-to-day operations.

Do cueing very well, you will surely crush the competition. Do it badly and you could profoundly damage your race weekend or vehicle development program. And you need to do this consistently, week after week.

Chances are your cueing and its processes can be upgraded at a much lower cost than buying a brand-new simulator. Of course, your new simulator can be greatly enhanced also.

But getting the most out of simulators is difficult, even for seasoned operators. This is unavoidable due to their complexity, combined with the unyielding and oftentimes hurried demands of the automotive and motorsport industries.

Our ProCue software removes the shakedown 'guesswork', replacing it with a proven workflow, state-of-the-art optimization and more. It will unleash the full potential of your existing cueing IP. Or give you a starting point.

Dr Craig Brown, ProCue's inventor, has 15+ years of experience in the simulation, embedded and automotive industries. He was initiated into the simulator world at McLaren, developing their state-of-the-art motion simulator in partnership with MTS—a multidisciplinary project encompassing control, simulation, motion cueing, software development and running simulator sessions for elite racing drivers.

He continued to specialize in motion simulators at Toyota Gazoo Racing as a founding member of a new UK office based in Epsom, building the foundations for TGR-Haas Formula One partnership. He was responsible for developing a global portfolio of motion simulators—from North Carolina to the base of Mount Fuji, with applications including Nascar, Hypercar, GT3, light commercial and passenger vehicle development.

He now works independently with major OEM's, universities, simulator vendors and consultancies in the relentless pursuit of motion simulator excellence. He regularly publishes scholarly articles about motion cueing and has given talks at DSC, ASCS and Royal Aeronautical Society events.

ProCue is the software embodiment of all this experience. The tool he "wishes he had". Let's OUT-CUE THE COMPETITION.



Dynisma is a UK-based technology company engineering world-class motion simulators for global automotive manufacturers and leading motorsport teams. Founded in 2017 by former Formula 1 engineer Ash Warne, Dynisma delivers turnkey, ultra-responsive systems that enable faster, more precise, and cost-efficient vehicle development.

At the core of its offering are patented Dynisma Motion Generators (DMGs) – high-fidelity motion platforms delivering sub-5ms latency and over 100Hz bandwidth from primary motion. Dynisma was the first motion platform manufacturer to offer a system with unlimited yaw. These breakthroughs enable OEMs to replicate real-world vehicle behaviour in a virtual environment, accelerating development decisions and reducing reliance on physical prototypes.

Dynisma's simulators are used across the full vehicle development lifecycle – from early concept to final sign-off. Core applications include vehicle dynamics, ride and NVH, tyre development, HMI, ADAS and autonomous system testing. The technology enables earlier validation, shortens development timelines, and enhances efficiency across engineering workflows.

Born in elite motorsport and trusted by top-tier racing teams, Dynisma also supplies simulator systems to teams competing in Formula 1, Formula 2, Formula E, WEC and IMSA – supporting performance development at the highest level of competition.

The company operates from its Technology and Manufacturing Campus in Bristol, UK, where a multidisciplinary team of 125+ experts serves a global customer base. Dynisma is also the official motion simulator partner of McLaren Automotive, providing tools to support the development of their next-generation supercars.

In the last 12 months, Dynisma's growth and innovation has been recognised with several major accolades, including listings on the FT1000, Europe's Fastest Growing Companies, The Sunday Times 100 Fastest Growing and Top 100 Tech Businesses, Top 10 on the FEBE Growth 100 Watch List in partnership with Virgin, as well as winning Technology Company of the Year 2025 at the British Business Awards.

With simulation now central to modern vehicle development, Dynisma is redefining what's possible – helping the world's most forward-thinking automotive brands deliver better vehicles, faster.

[www.dynisma.com](http://www.dynisma.com)

## Exhibitors

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[www.institutimage.ensam.eu](http://www.institutimage.ensam.eu)

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As a global leader in virtual test driving technology, IPG Automotive develops innovative simulation solutions for vehicle development. Designed for seamless use, the software and hardware products can be applied throughout the entire development process, from proof-of-concept to validation and release. The company's virtual prototyping technology facilitates the automotive systems engineering approach, allowing users to develop, test and validate new systems in a virtual whole vehicle.

IPG Automotive is an expert in the field of virtual development methods for the application areas of Autonomous Vehicles, ADAS, Powertrain, and Vehicle Dynamics, committed to providing support to master the growing complexity in these domains. Together with its international clients and partners, the company is pioneering simulation technology that is increasing the efficiency of development processes.

[www.ipg-automotive.com](http://www.ipg-automotive.com)



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Neural Balance Innovation (NBI) is an innovative Deeptech start-up. Our primary goal is to develop and deploy our STIMBOX, a novel sensory stimulation device that specifically targets the balance organ in a non-invasive manner. This project is based on the combined expertise of the best French specialists in neuroscience of balance, as well as cutting-edge academic research expertise in sensor technology and signal processing. Through this new sensory approach, we can effectively act on the balance and motor systems, as well as sensory synchronization. We are currently developing two devices: The first aims to reduce cybersickness and enhance the immersive experience in Virtual Reality by artificially stimulating the inner ear, thereby providing sensations of movement. This device has a wide range of potential applications, from virtual reality entertainment to applications such as pilot training to strengthen their skills and improve their performance.

The second aims to reduce motion sickness and provide gradual desensitization through a dedicated application.

[nbi.fr](http://nbi.fr)

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project:syntropy

Project: syntropy (Magdeburg & Berlin/D, Gothenburg/SE, Shanghai/CN, Taiwan and Singapore) creates technologies and display solutions for professional Simulation- and Training Environments, interactive, immersive attractions and dome cinema as well as multimedia experiences.

<https://www.project-syntropy.de>

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rFpro, a member of the AB Dynamics Group plc, provides a simulation environment for the automotive and motorsport industries. It is used for the development and testing of autonomous vehicles, ADAS, vehicle dynamics and human factor studies. rFpro's automotive customers are the world's largest car manufacturers, tier one suppliers and sensor developers. We enable them to simulate, test and validate new sensors, control systems and vehicle hardware systems. The top ten OEMs that were early adopters of rFpro technology have already launched road cars which started their development, not on a test track, but in a rFpro's virtual environment.

[www.rfpro.com](http://www.rfpro.com)

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 sensodrive

Sensodrive Simulators. Perfect Simulations – Perfect Results. Sensodrive is a spin-off from the German Aerospace Center (DLR). The company was founded in 2003 by researchers from the DLR. Sensodrive is specialized in torque technology as well as in high-performance simulators. Sensodrive develops and produces tens of thousands of torque sensors and torque-controlled actuators every year for renowned companies worldwide. It was first company to launch specialized torque sensors for robotic drives. In addition to its leading role in drive technology, Sensodrive is known for its state-of-the-art force feedback products. The sophisticated simulators stand out due to sensitive force feedback and impressive realism. From the steering wheel to pedals, to rotary and push buttons, or an entire simulator cockpit – the Sensodrive simulators enable highend simulations in research and development.

[www.sensodrive.de](http://www.sensodrive.de)



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Smart Eye is the global leader in Human Insight AI, technology that understands, supports and predicts human behavior in complex environments. Bridging the gap between humans and machines for a safe and sustainable future. Smart Eye offers the world's most advanced eye tracking systems for analyzing human behavior. Offering unparalleled performance in complex environments, our carefully crafted instruments enable insights into human behavior and human-machine interaction in automotive, aviation, assistive technology, media & marketing, behavioral science and many more fields.

[www.smarteye.se](http://www.smarteye.se)



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Thierry CLEMOT's company creates highly precise 3D environments for car simulators. These real environments are created from high-accuracy 3D laser scans that we perform ourselves. Available quickly, our 100 km urban models "CITY" allow us to create every exercise needed in fictive environments.

Today, our models are used by car manufacturers in the US, Asia, and Europe. What about you?

Don't hesitate to consult the database catalog on [thierryclemot.com](http://thierryclemot.com).

[www.thierryclemot.com](http://www.thierryclemot.com)

17, 25



VI-grade is the global provider of disruptive vehicle development solutions that are paving the way to developing vehicles with Zero Prototypes. Its human-centric solutions comprise industry-leading real-time simulation software, professional driving simulators and Hardware-in-the-Loop solutions that accelerate product development across the transportation industry.

The company's suite of scalable driving simulators covers a wide performance range to assess the multi-disciplinary driving experience. These proven solutions enable OEMs, suppliers, research centers, motorsport teams and universities to reduce physical prototypes while accelerating innovation in their quest to get ever nearer to achieving the ultimate development goal of Zero Prototypes.

VI-grade is part of HBK's Virtual Test Division, which focuses on providing real-time software, simulator, and hardware-in-the-loop solutions to virtually test products throughout the development cycle, helping companies accelerate innovation and reduce time-to-market, and improve their competitive advantage.

Since September 2018, VI-grade has been part of Spectris plc. The firm conducts business in four major segments – materials analysis, testing & measurement, in-line instrumentation and industrial controls – and serves a broad range of industries ranging from automotive and aerospace to electronics, energy, mining and pharmaceuticals.

[www.vi-grade.com](http://www.vi-grade.com)



**The *Driving Simulation Association* aims to:**

- **promote and encourage driving simulation in all its aspects:** re-search, studies, developments, applications and products;
- **facilitate communication between people** involved or interested in driving simulation;
- **contribute to the organization of scientific conferences in the area of driving simulation,** Driving Simulation Conference (DSC) Europe, DSA seminars
- **organize special interest groups** (SIG) Driving Simulation Experience (SIGDSEP)
- **inform** about recent events new and trends

# DSA Members & Partners

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## Our Members



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## and our Partners



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Join the association, register now!



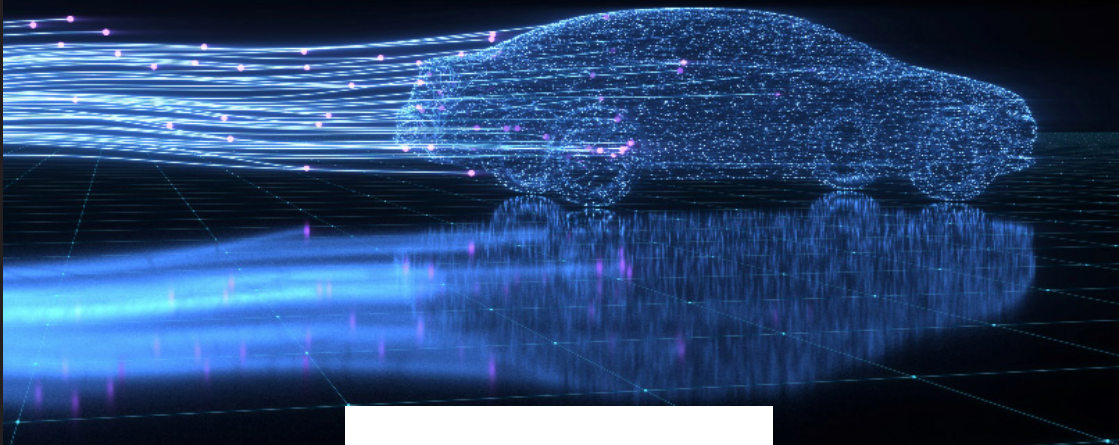
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Driving Simulation & eXtended Reality Conference & Exhibition



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