GTTC 26

GT TECHNICAL CONFERENCE

AGENDA

HANAU (FRANKFURT) | GERMANY
MARCH 24 & 25

GAMMA TECHNOLOGIES

DAY 1 | Morning Sessions

8:20 REGISTRATION

9:20 **Opening Remarks| Gamma Technologies**
Jan Böbel
Director of European Operations

9:30 **Welcome Address | Gamma Technologies**
Dimple Shah
CEO

10:15 **Keynote Speaker | McKinsey & Company**
The Future of Engineering Simulation in the Age of AI
Alessandro Faure Ragani
Senior Expert

10:45 COFFEE BREAK & EXPERT TALKS

I Useability Improvements for GT-POWER-xRT
Valery Martyuk

II Advancements in Two-Phase Refrigerant Modeling
Patrice Dubs

III GT-FEMAG: Efficient Multiphysics E-motor Design
Felix Brenner

Expert Talks start 10 minutes after the start time of the break.

11:30 **Themed breakout rooms: Session I**

	SMART THERMAL SYSTEMS FOR NEXT-GEN MOBILITY ROOM A	MODELING EMISSION CONTROL SYSTEMS & STRATEGIES ROOM B	BATTERY DESIGN & SAFETY: MODELING FOR RELIABILITY ROOM C
11:30	**Secop GmbH** Simulation-Driven Design of Small Fridges for Cars: From China's EV Trend to Global Readiness Mattias da Silva Castro	**Dumarey** 1D-CFD-Trained Neural Networks for Diesel Oxidation Catalyst Modeling Paolo Ferreri	**About:Energy** Transforming Battery Pack Design with Multi-Scale Modeling Miles Robertson
11:50	**IVECO GROUP | GammaTech Engineering** Integrated HVAC and Cabin Thermal Simulation for Heavy-Duty Trucks Using GT-TAITherm Federico Paolini Luca Panizzolo	**Everllence SE** Modeling of a Noble-metal-free Catalyst for the Methane Oxidation in Marine Applications Manuel Materna	**Toshiba Corporation** Development of a Battery Module Design Methodology for Thermal Runaway Mitigation Using GT-SUITE and GT-CONVERGE Ryosuke Yagi
12:10	**Dallara** The Strategic Role of HVAC in High-Performance Vehicles: A GT-SUITE Simulation Approach Luca Ielo	**Automobili Lamborghini | GammaTech Engineering** Advanced Calibration and Validation of Three-Way Catalyst Models Using GT-xCHEM for Virtual Engine Optimization Sofia Tanzi	**Ampere | GammaTech Engineering** Thermal Modeling of Li-ion Cells for Module and Pack Design and Calibration Applications using GT-SUITE Cedric Servant Erwann Le Callonec
12:30	**Gamma Technologies** Optimizing Passenger Comfort and BEV Range Using Reinforcement Learning Controls Marek Lehocky	**Robert Bosch** Holistic Simulation Approach for PC/LCV: Optimizing Energy Consumption & Emissions for REEV Ingo Ruthenberg	**Gamma Technologies** Designing Under Pressure: Navigating Thermal, Mechanical, and Electrochemical Tradeoffs in Battery Modules Somayeh Toghyani

12:50 LUNCH

14:05 **Themed breakout rooms: Session II**

DAY 1 | Afternoon Sessions

FUEL CELL FRONTIERS: HYDROGEN & BEYOND
ROOM A

14:05 **Convion**
System-Level Design and Investigation of a Solid Oxide Fuel Cell System with Fuel Recirculation and External Ammonia Cracking
Yahya Bahadori
Satu Lehto

14:25 **H24Project/MissionH24**
Simulation of a Hydrogen Fuel Cell Racecar Powertrain–Design and System Integration with Multiple Partners
Nicolas Perez
Roméo Coletti

14:45 **BMW Group**
Experimental Validation of 1D Simulation for Freeze Start Heat-Up Behavior in PEM Fuel Cells
Markus Schwarz

15:05 **Gamma Technologies**
Enhancing Fuel Cell Vehicle Durability: From Machine Learning Degradation Model to EC-DMS
Thomas Vevaud

MARINE SYSTEMS & PROPULSION: EFFICIENCY AT SEA
ROOM B

14:05 **CLEOS**
Energy Efficiency Assessment of Shaft Generators on LNG Carriers and VLCC Tankers
Nikolaos Aletras

14:25 **Delft University of Technology**
GT-SUITE Model for Wind Assisted Ship Propulsion System, Integration of Direct Use of Wind Energy on Board and Conventional Powertrains to Reduce Vessels' Emissions
Deborah Noffke

14:45 **Gamma Technologies & AlbatrosDigital**
Assessment of Marine Propulsion Systems under Realistic Voyage Scenarios (40MIN)
Milan Cvetkovic
Erik Verboom

MECHANICAL SYSTEMS
ROOM C

14:05 **Luleå Technical University**
1D Simulation of Hydraulic Cam Phaser System
Johan Germundsson

14:25 **Stellantis**
Integrated Engine Friction
Agostino Iorio

14:45 **Obrist Engineering**
Multi-Body Model of Pump for Liquid Hydrogen
Markus Öttl

15:05 **Gamma Technologies**
Improving EV Gear Durability through Contact EHL Simulation and Micro-Geometry Modification
Marcel Schmädicke

15:25 **COFFEE BREAK & EXPERT TALKS**

I — Gear Design New Features — *Marek Riha*

II — Faster Underhood 3D Modeling for Full Vehicle with GT-Auto-3DFlow — *Dig Vijay*

III — Advancements in PowerElectronics Modeling — *Anthony Tsoulfaidis*

Expert Talks start 10 minutes after the start time of the break.

16:10 **Themed breakout rooms: Session III**

INTELLIGENT SYSTEMS: AI FOR PREDICTIVE AGING AND THERMAL MANAGEMENT
ROOM A

16:10 **Stellantis**
Leveraging GT-SUITE ML Capabilities to Improve Simulations
Loïc Tagba

16:30 **MAN Truck & Bus SE**
Predicting Battery End-of-Life Using Machine Learning Models
Philipp Wöhner

AEROSPACE
ROOM B

16:10 **Airbus**
Airbus ZEROe: Simulating Liquid Hydrogen Chilldown for Early-stage Aircraft Concept
Roberto Alegre Usach

16:30 **SAFRAN Tech | GammaTech Engineering**
1D/3D Modeling and Design of Aeronautical Heat Exchangers Using Cryogenic Refrigerants
Michael Ovando Castro
Andrea Cappuccio

THERMAL ANALYSIS
ROOM C

16:10 **Gamma Technologies**
Understanding Battery Safety: Cooling and Venting Effects on Thermal Runaway Propagation
Yogesh Nalam

16:30 **ThermoAnalytics**
3D Cabin AI-Comfort-based Controller for an Electric Full Vehicle Model
Sacha Jelic

	INTELLIGENT SYSTEMS: AI FOR PREDICTIVE AGING AND THERMAL MANAGEMENT ROOM A	AEROSPACE ROOM B	THERMAL ANALYSIS ROOM C
16:50	**HYUNDAI MOTOR INDIA ENGINEERING** Real World Battery Aging Prediction using Simulation Approach & Application of ML on VTM Shaik Salman Vali Gopu Srinivas Reddy	**DLR** Simulation of a 75 kW Fuel Cell System Demonstrator for Hydrogen-Electric Regional Aircraft Daniel Juschus	**Volkswagen | GammaTech Engineering** A 1D-CFD Modeling Framework for Wheel-brakes Thermal Management Integrating a Monte Carlo Ray Tracing Method Matteo Caushi

DAY 1 | Evening

17:10 SHORT BREAK

17:20 **GT-Content & Closing Remarks**
A Multiphysics Modeling Approach for Optimizing Cooling Concepts in Traction E-motors Using GT-SUITE
Yogesh Nalam

17:45 **Gamma Technologies**
When Agents Build the Model: Accelerating Digital Twins with Intelligent AI
Christoph Boettcher

18:10 DRINKS & NETWORKING

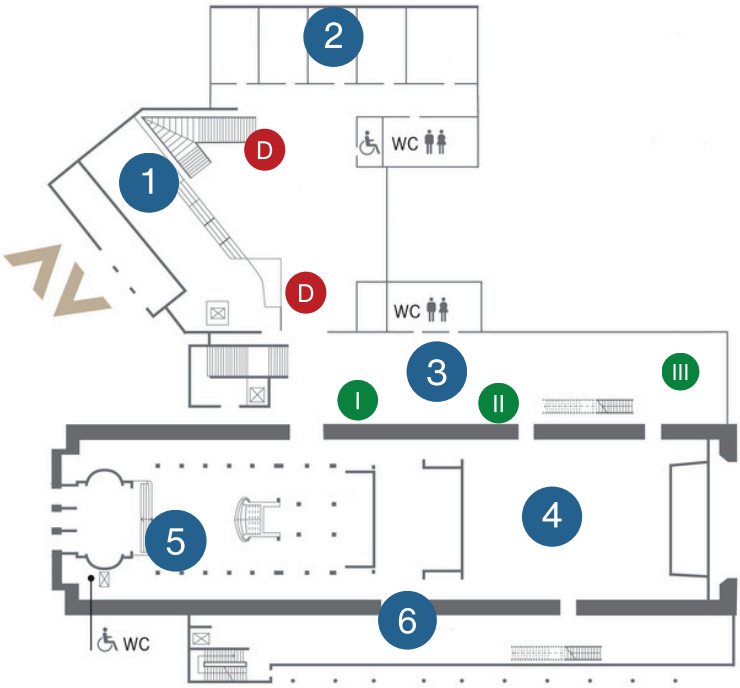
18:20 **Dinner**

19:35 **Casino Night**

22:30 END OF THE EVENT

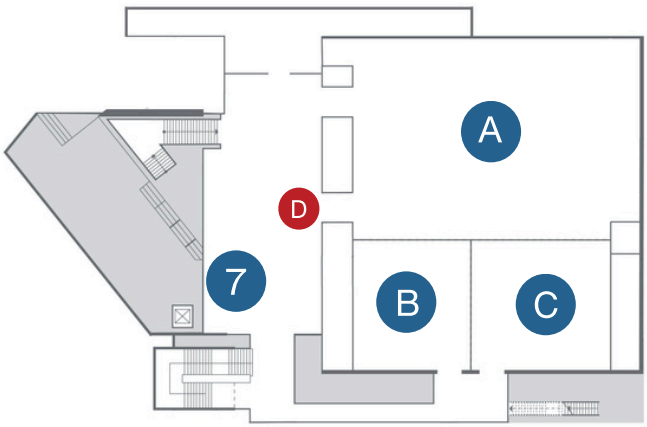
Venue Map

First Floor | Erdgeschoss



1 Registration & Information Desk
2 Meeting Rooms
3 Expert Booths (I,II,III) & Partners zone

Second Floor | Obergeschoss



4 Dinner
5 6 Casino Night
7 Academic Poster Session
A Main Sessions & Presentation Room (A)
B Presentation Room (B)
C Presentation Room (C)
D Demo Booth GT-Play & GT Intelligence Studio

CONVERGENT SCIENCE · Simerics TECHNOLOGY BY DESIGN · THERMO ANALYTICS

DAY 2 | Morning Sessions

8:00 REGISTRATION

9:00 **Opening Remarks | Gamma Technologies**
Jan Böbel
Director of European Operations

9:05 **Porsche**
Evaluation of the Potential of Automation Using Dedicated Use-cases in Thermal Management Models
Philip Muhl

09:25 **Bugatti-Rimac d.o.o. | GammaTech Engineering**
Deploying Cloud-Based Simulation for Vehicle Thermal Management: From GT-SUITE to GT-Play
Leonardo Iacobelli | Andrea Bertone

09:45 **Gamma Technologies**
GT Vision & Future Directions
Iakovos Papadimitriou & Dan Marsh

10:20 COFFEE BREAK & EXPERT TALKS

I — Integrated XiL Workflows: MiL, SiL & HiL via FMI, Simulink & FMU Compilation
Manish Shenoy

II — New Features in Aftertreatment Modeling for Automotive, Industrial & Marine Systems
Menelaos Zafeiridis

III — Beyond Degradation: Machine Learning Insights Into Battery Performance and Aging
Somayeh Toghyani

Expert Talks start 10 minutes after the start time of the break.

10:50 **Themed breakout rooms: Session I**

	HYDROGEN COMBUSTION: MODELING FOR PERFORMANCE — ROOM A	THERMAL MANAGEMENT — ROOM B	DIGITAL TWINS AND INTEGRATION — ROOM C
10:50	**Hyundai Motor Group | GammaTech Engineering** Virtual Development of a L6 Hydrogen Engine: from Predictive Combustion Modeling to Hardware Optimization Emanuele Servetto	**ISUZU Motors** Thermal Modeling of Electric Truck Drive Unit Sergei Pankratov	**Politecnico di Torino** A Digital Twin for Developing Hybridised Powertrain Solutions for Non-Road Mobile Machinery Luciano Rolando
11:10	**Politecnico di Torino** Enhanced Predictive Combustion Modeling of a Hydrogen-Fueled PFI Engine via Modified Premixed Turbulent Flame Speed Correlation Gerardo Stanzione	**FEV Vehicle** Underhood Airflow Simulation with Auto3DFlow Ömer Köseoglu	**Brno University of Technology** Complex Digital Twin Vehicle Model using Functional Mock-Up Interface (FMI) Michael Böhm
11:30	**Hyundai Motor Group | GammaTech Engineering** Development of a Crankcase Ventilation System Model for a Heavy Duty H2 ICE Application Alessio Viti	**Barcelona Technical Center** Modular Thermal Management System Design Joaquim Guitart Corominas	**CTU in Prague** Frugal L-category BEV Platform Studies Rastislav Toman
11:50	**Gamma Technologies** Using GT-POWER in the Development Workflow of H2 Engines with Deep Physics Stepan Kyjovsky	**Gamma Technologies** Investigation of the Acoustical Response of a CO_2 Heat Pump System Marek Lehocky	**Gamma Technologies** Leveraging the Power of GT-Play API for Digital Twins. Integrating Battery Aging with Battery Field Data Nils Framke

DAY 2 | Afternoon Sessions

12:10 LUNCH BREAK

13:10 Themed breakout rooms: Session II

	THERMAL MANAGEMENT FOR EVS: FAST CHARGING & BEYOND ROOM A	ELECTRIFICATION CHALLENGES: POWER DISTRIBUTION & MOTOR MODELING ROOM B	ALTERNATIVE FUELS: AMMONIA & HYBRID COMBUSTION STRATEGIES ROOM C
13:10	**DANA Thermal Products France** Virtualization For Vehicle Thermal Management System Nadir El Maamouri Théo Duhamel Ibrahim Zaaroura	**Hyundai Motor Group | GammaTech Engineering** Development of Multi-Level LV Distribution System Topologies for BEVs: from 12V to 48V Giulio Castagna	**Gamma Technologies** ML-powered Surrogate Models for Emission Prediction in Ammonia Engines Valery Martyuk
13:30	**MoldTecs SAS/ Ecole Centrale de Nantes** Electric Vehicle Thermal Management Study for Fast Charging Cycles: Battery Disconnect Unit Model Christelle Ratajczack Guillaume Goumy	**Horse Powertrain** Development of Electrically Excited Synchronous Machine (EESM) Thermal Model for System Performance Evaluation Duc-Khanh Nguyen	**Aristotle University Thessaloniki** Exhaust Gas Aftertreatment Solutions for Ammonia Engines Grigorios Koltsakis
13:50	**Dallara** Powertrain Cooling and Braking Systems Sizing for LMDh Cars Using GT-SUITE Alberto Momesso	**Cummins Deutschland | GammaTech Engineering** Electromechanical Modeling of a Three-Phase BLDC Motor in GT-SUITE Using an Equivalent RLE Circuit Representation Kay Schmidt Giulio Castagna	**University of Rostock** Modeling and Simulation of a Spark-ignited Ammonia-hydrogen Dual-fuel Engine Niklas Gierenz
14:10	**FH Aachen University of Applied Sciences** Enhancing Cold-Start and Energy Efficiency In Hybrid Fuel Cell-Battery Powertrains Using PCM-Assisted Waste Heat Recovery Aezid Ul Hassan Najmi	**Gamma Technologies** Electrons to Newton-Meters: A Holistic E-Axle Optimization Strategy Anthony Tsoulfaidis	**Gamma Technologies** A Faster Way to Get Detailed Engine Models to GT-POWER-xRT Valery Martyuk

14:40 **Aston Martin Lagonda | GammaTech Engineering**

CFD Alignment: Underhood Calibration with GT-Automation
Matteo Comollo

15:00 CLOSING REMARKS

15:05 COFFEE BREAK & END OF THE EVENT

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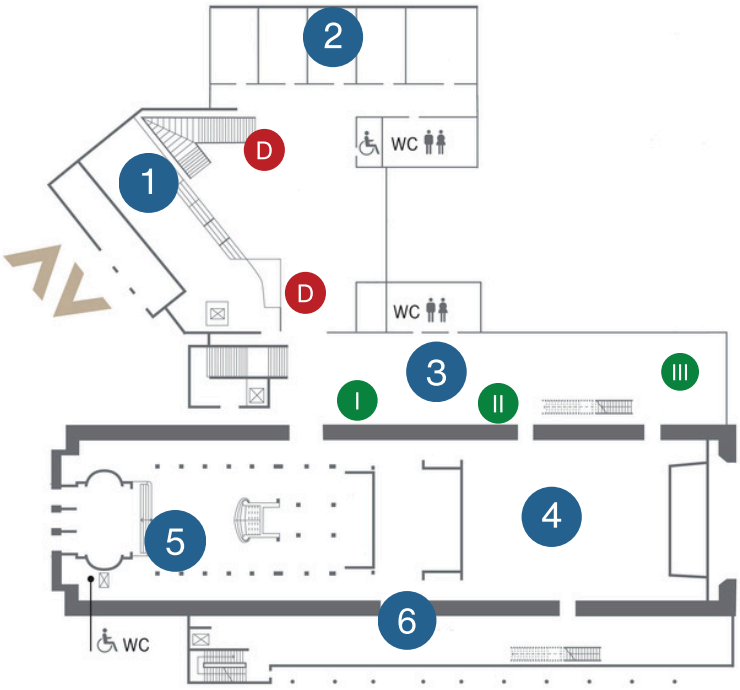

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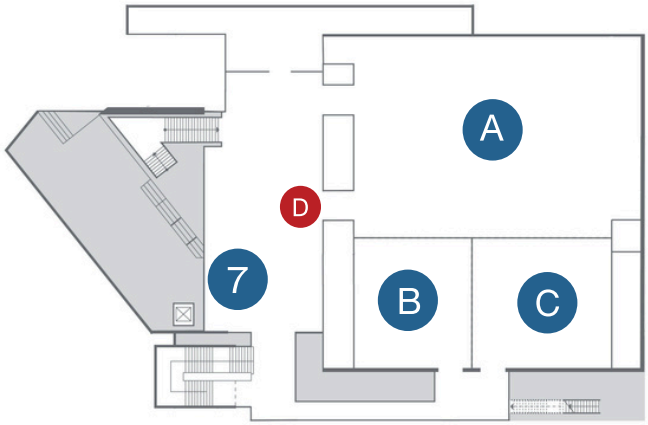

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THANK YOU FOR BEING PART OF GTTC GERMANY 2026!

HAVE ANY QUESTIONS? CONTACT US

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