

GTTC **26**

GT TECHNICAL CONFERENCE

PRELIMINARY AGENDA

HANAU (FRANKFURT) | GERMANY
MARCH 24 & 25

DAY 1 - Tuesday, March 24 | Morning Sessions

- 8:00 **REGISTRATION**
- 9:00 **Opening Remarks | Gamma Technologies**
- 9:10 **Welcome Address | Gamma Technologies**
- 9:45 **Keynote Speaker | TBA**
- 10:15 **GT Technical Presentation | TBA**
- 10:45 **COFFEE BREAK & EXPERT TALKS**
- 11:30 **Themed breakout rooms: Session I**

SMART THERMAL SYSTEMS FOR NEXT-GEN MOBILITY

MODELING EMISSION CONTROL SYSTEMS & STRATEGIES

BATTERY DESIGN & SAFETY: MODELING FOR RELIABILITY

- | | | | |
|-------|--|---|--|
| 11:30 | Secop
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 | Everlence 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
Antonio Aliperti
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 | GT Technical Presentation
Optimizing passenger comfort and BEV range using reinforcement learning controls | Robert Bosch
Holistic Simulation Approach for PC/LCV: Optimizing Energy Consumption & Emissions for REEV
Ingo Ruthenberg | GT Technical Presentation
Designing Under Pressure: Navigating Thermal, Mechanical, and Electrochemical Tradeoffs in Battery Modules |

12:50 **LUNCH & EXPERT TALKS**

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

DAY 1 - Tuesday, March 24 | Afternoon Sessions

FUEL CELL FRONTIERS: HYDROGEN & BEYOND

MARINE SYSTEMS & PROPULSION: EFFICIENCY AT SEA

MECHANICAL SYSTEMS

14:05 Volvo Group
PEM Fuel Cell Membrane
Electrode Assembly
Degradation Model

Gnana Lahari Kothala

14:25 Convion
System-Level Design and
Investigation of a Solid
Oxide Fuel Cell System
with Fuel Recirculation
and External Ammonia
Cracking

Yahya Bahadori

14:45 H24Project/MissionH24
Simulation of a Hydrogen
Fuel Cell Racecar
Powertrain – Design and
System Integration with
Multiple Partners

Nicolas Perez
Roméo Coletti

15:05 BMW Group
Experimental Validation of
1D Simulation for Freeze
Start Heat-Up Behavior in
PEM Fuel Cells

Markus Schwarz

15:20 COFFEE BREAK & EXPERT TALKS

16:10 Themed breakout rooms: Session III

CLEOS
Energy Efficiency
Assessment of Shaft
Generators on LNG and
VLCC Carriers

Nikolaos Aletras

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

TBC

TBC

**GammaTechnologies &
AlbatrosDigital**
Assessment of Marine
Propulsion Systems under
Realistic Voyage
Scenarios

Luleå Technical University
1D Simulation of Hydraulic
Cam Phaser System
Johan Germundsson

Stellantis
Integrated Engine Friction
Agostino Iorio

Obrist Engineering
Multi-Body Model of Pump
for Liquid Hydrogen
Markus Öttl

GT Technical Presentation
Accounting for Long-Term
Degradation in
Mechanical Systems using
the WearAnalysis
Workflow

INTELLIGENT SYSTEMS: AI FOR PREDICTIVE AGING AND THERMAL MANAGEMENT

AEROSPACE

THERMAL ANALYSIS

16:10 Stellantis
Leveraging GT-SUITE ML
Capabilities to improve
simulations

Loïc Tagba

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

Philipp Wöhner

Airbus
Airbus ZEROe: Simulating
liquid hydrogen chilldown
for early-stage aircraft
concept

Roberto Alegre Usach

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

**Volkswagen | GammaTech
Engineering**
A 1D-CFD Modelling
Framework for Wheel-brakes
Thermal Management
Integrating a Monte Carlo
Ray Tracing Method
Matteo Caushi

ThermoAnalytics
3D cabin Comfort-based
Controller for an Electric Full
Vehicle Model
Sacha Jelic

**INTELLIGENT SYSTEMS:
AI FOR PREDICTIVE
AGING AND THERMAL
MANAGEMENT**

AEROSPACE

THERMAL ANALYSIS

**16:50 HYUNDAI MOTOR INDIA
ENGINEERING**
Real World Battery Aging
Prediction using Simulation
Approach & Application of
ML on VTM

Salman Vali Shaik
Gopu Srinivas Reddy

DLR
Simulation of a 75 kW Fuel
Cell System Demonstrator
for Hydrogen-Electric Flight in
Light Aircraft

Simon Sobott

GT Technical Presentation
Understanding Battery Safety:
Cooling and Venting Effects
on Thermal Runaway
Propagation

Yogesh Nalam

DAY 1 - Tuesday, March 24 | 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

17:55 DRINKS & RELAX

18:20 Dinner

19:35 Casino Game

22:30 END OF THE EVENT

DAY 2 - Wednesday, March 25 | Morning Sessions

8:00 REGISTRATION

8:30 Opening Remarks | Gamma Technologies

8:35 Porsche
Evaluation of the Potential of Automation Using Dedicated Use-cases in
Thermal Management Models
Philip Muhl

8:55 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

9:15 Aston Martin Lagonda | GammaTech Engineering
CFD Alignment: Underhood Calibration with GT-Automation
Matteo Comollo

9:35 Gamma Technologies Technical Presentation
TBC

TBC

10:05 COFFEE BREAK & EXPERT TALKS

10:35 Themed breakout rooms: Session I

HYDROGEN COMBUSTION: MODELING FOR PERFORMANCE

THERMAL MANAGEMENT

DIGITAL TWINS AND INTEGRATION

10:35

Hyundai Motor Group | GammaTech Engineering

Virtual Development of a L6
Hydrogen Engine: from
Predictive Combustion
Modelling to Hardware
Optimization

Emanuele Servetto

ISUZU

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

10:55

Politecnico di Torino

Enhanced Predictive
Combustion Modeling of a
Hydrogen-Fueled PFI Engine
via Modified Premixed
Turbulent Flame Speed
Correlation

Gerardo Stanzione

FEV Vehicle

Auto3DFlow

Ömer Köseoglu

Brno University of Technology

Complex Digital Twin
Vehicle Model using
Functional Mock-Up
Interface (FMI)

Michael Böhm

11:15

Hyundai Motor Group | GammaTech Engineering

Development of a
Crankcase Ventilation
System Model for a Heavy
Duty H2 ICE Application

Alessio Viti (GTE)

Barcelona Technical Center

Modular Thermal
Management System Design

Joaquim Guitart

CTU in Prague

Frugal L-category BEV
Platform Studies

Rastislav Toman

11:35

GT Technical Presentation

Using GT-POWER in the
Development Workflow of
H2 Engines with Deep
Physics

GT Technical Presentation

Investigation of the
Acoustical Response of a
CO₂ Heat Pump System

Marek Lehocky

GT Technical Presentation

Leveraging the power of
GT-Play API for Digital Twins.
Integrating Battery Aging
with Battery Field Data

11:55

LUNCH BREAK & EXPERT TALKS

12:55

Themed breakout rooms: Session II

THERMAL MANAGEMENT FOR EVS: FAST CHARGING & BEYOND

ELECTRIFICATION CHALLENGES: POWER DISTRIBUTION & MOTOR MODELING

ALTERNATIVE FUELS: AMMONIA & HYBRID COMBUSTION STRATEGIES

12:55

DANA Thermal Products France

Virtualization For Vehicle
Thermal Management
System

Nadir EL MAAMOURI
Théo Duhamel

Hyundai Motor Group | GammaTech Engineering

Development of Multi-Level
LV Distribution System
Topologies for BEVs: from 12V
to 48V

Giulio Castagna

COMOTI - Romanian Research and Development Institute for Gas Turbines

An Assessment of the Use
of Ammonia as Additional
Fuel in a Large Marine Diesel
Engine

Lucian Miron

13:15

Moldtecs SAS/ Ecole Centrale de Nantes

Electric Vehicle Thermal
Management Study for Fast
Charging Cycles: Battery
Disconnect Unit Model

Georges Salameh

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

**THERMAL MANAGEMENT
FOR EVS: FAST CHARGING &
BEYOND**

**ELECTRIFICATION
CHALLENGES: POWER
DISTRIBUTION & MOTOR
MODELING**

**ALTERNATIVE FUELS:
AMMONIA & HYBRID
COMBUSTION STRATEGIES**

13:35 Dallara

Powertrain Cooling and Braking Systems Sizing for LMDh Cars Using GT-SUITE

Alberto Momesso

**Cummins Deutschland |
GammaTech Engineering**

Electromechanical Modelling 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

13:55 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

**GT Technical
Presentation**

Electrons to Newton-Meters: A Holistic E-Axle Optimization Strategy

**GT Technical
Presentation**

ML-powered Surrogate Models for Emission Prediction in Ammonia Engines

14:25 COFFEE BREAK & EXPERT TALKS

14:45 Customer Presentation

TBA

15:05 GT Technical Presentation

15:35 CLOSING REMARKS

**WE LOOK FORWARD TO WELCOMING YOU
AT GTTC GERMANY 2026!**

**REGISTER FOR
GTTC 2026**

**HAVE ANY QUESTIONS?
CONTACT US**

