



TUESDAY, SEPTEMBER 29<sup>th</sup>

# PROGRAM | DAY 1

TRANSVALOR INTERNATIONAL SIMULATION DAYS

## AMPHITHEATER

## ELLA FIDZGERALD ROOM

8:30AM

*Welcome Coffee, Posters and Exhibition time - EXHIBITOR HALL*

8:55AM

**Introduction of the event**

Nicolas MORISE, Transvalor

9:00AM

**Business & Strategy Overview**

Nicolas MORISE, Marc BUSSON & Etienne PERCHAT, Transvalor

9:20AM

**Delivering innovation efficiently : a peek into Transvalor's future**

Andres RODRIGUEZ-VILLA, Transvalor

9:40AM

**Transvalor Roadmap: navigating every stage from liquid material to finished product and its life cycle**

Max BINAGOT, François FRASCATI & Nikolay OSIPOV, Transvalor

10:20AM

*Coffee Break, Posters and Exhibition time - EXHIBITOR HALL*

10:50AM

**AI AND DIGITAL SIMULATION:  
A STRATEGIC ASSET TO TACKLE INDUSTRIAL CHALLENGES**

Towards a new generation of models for Zr-alloys hot forming processes, getting the best out of FORGE®, python API, TSV PyLab, large industrial databases and artificial intelligence

Alexis GAILLAC, Framatome

**STEELMAKING AND CASTING**

**INTERPIPE: Continuous casting process optimization using THERCAST®**

Oleksandr SHVETS, INTERPIPE

11:15AM

**Towards integration of data-driven and physics embedded surrogates for metal forming simulations**

Jose ALVES, Transvalor

**Case Studies of Continuous Casting Analysis using THERCAST® at Nippon Steel**

Norimasa YAMASAKI, Nippon Steel

11:40AM

**ForgelA: integrating forging simulation with AI**

David RYCKELYNCK, CEMEF, Mines Paris - PSL

Coming soon

12:05PM

**Physical and Machine Learning Modelling of 7XXX Aluminium Alloys Using High Throughput Data for In-Service Performance Prediction**

Angela HAYKAL & Julien BARLIER, Transvalor

Coming soon

12:30PM

*Lunch break - DINING ROOM*

1:50PM

*Open Discussions with keynote - AMPHITHEATER*

2:35PM

Pitch session

Pitch session

2:55PM

**STREAMLINING SIMULATIONS WORKFLOWS**

Coming soon

**PRODUCT AND PROCESS DESIGN**

Coming soon

3:20PM

**Realistic forging simulations from raw machine data : MPFX module**

Arjun Kalkur MATPADL, Aubert & Duval

**Bridging Experiment and Simulation in Casting: Validation Methodologies Across Casting Processes and Recent Advances in Lost Foam Modeling**

Julien ARTOZOUL, Arts et Métiers

3:45PM

*Coffee Break, Posters and Exhibition time - EXHIBITOR HALL*

4:10PM

**A Digital Eco-system for Open-Die Forging of High-integrity Components**

Salaheddin RAHIMI, University of Strathclyde

**Influence of mold geometry and dimensions on the development of compositional heterogeneities in high-strength steels**

Mohammad JAHAZI, École de technologie supérieure de Montréal

4:35PM

**Enhanced automation and customization of calculation coupling Forge NxT API with pSeven Enterprise**

Nina MOËLLO, pSeven & Laurence GASTON, Transvalor

**Numerical study of the filling and solidification of molds in VIM (Vacuum Induction Melting) and PAMCHR (Plasma Arc Melting with Cold Hearth Refining) processes**

Widad AYADH, IRT M2P

5:00PM

*Optional Social Activities (available by reservation)*

Please note that the program is preliminary and may be revised.



**WISH TO EXTEND DISCUSSIONS?**

Book your speedmeeting with a Transvalor expert today

TRANSVALOR

**AMPHITHEATER****ELLA FIDZGERALD ROOM**

**8:30AM**  
**9:00AM**  
**9:05AM**  
**9:35AM**  
**10:05AM**  
**10:30AM**  
  
**11:00AM**  
**11:25AM**  
  
**11:50AM**  
  
**12:15PM**  
  
**12:40PM**  
**2:00PM**  
**2:45PM**  
  
**3:05PM**  
  
**3:30PM**  
**3:55PM**  
**4:25PM**  
  
**4:50PM**  
  
**5:15PM**  
  
**5:50PM**  
  
**7:00PM**

*Welcome Coffee, Posters and Exhibition time - EXHIBITOR HALL***Introduction**

Laëtitia PEGIE, Transvalor

**Keynote**

Vikas SARAF, ATI Forged Product

**Keynote**

Elie HACHEM, CEMEF

**Industrialization of the CAFE Method for predicting stray grains during Solidification**

Aboubakry AGNE &amp; Ngadia TAHA NIANE, SAFRAN TECH

*Coffee Break, Posters and Exhibition time - EXHIBITOR HALL***NUMERICAL MODELING : NEXT EVOLUTIONS****Unravelling FORGE® NxT 5.0**

Max BINAGOT, Transvalor

**Exploring THERCAST® NxT 3.2**

François FRASCATI, Transvalor

**DATA void & porosities**

Daniel PINO MUNOZ &amp; Laurent LANGLOIS, CEMEF/ENSAM Metz

**Robust and Feature-aware Arbitrary Lagrangian - Eulerian Method for Material Forming Applications**

Jesus Oswaldo GARCIA, Transvalor

*Lunch break - DINING ROOM**Open Discussions with keynote - AMPHITHEATER*

Pitch session

**MATERIALS AND PROCESSES****Simulation of the orbital forming process for wheel bearings with FORGE®**

Antoine PIGNOL, NTN Europe

**Challenges in simulating burr-free cold forming processes**

Timo KELLER, KLS Martin SE &amp; Co. KG

*Coffee Break, Posters and Exhibition time - EXHIBITOR HALL***Experimental Characterisation of Service-Degraded H13 Tool Steel and Numerical Assessment of Die Plasticity Risk in Hot Forging of Nickel-based Superalloys**

Julen AGIRRE, Mondragon Unibertsitatea

**Underskin Overview: Subsurface Fold Detection in Simulation**

Satyajee KULKARNI, Transvalor

**In-Situ Temperature Distribution Monitoring of Hot Mill Rolls Using Fiber-Optic Sensors**

Helin SASAN, Peaslee Steel Manufacturing Research Center / Missouri S&amp;T

**Thermomechanical Processing of NiTiZr Alloys: Experiments and Finite Element Modeling**

Alejandro PADILLA GONZALEZ, University Of North Texas

*Gala Dinner - LA SIESTA, ANTIBES***MATERIALS AND STRUCTURES****Flexural strength of reinforced V shaped oxide/oxide composite specimens**

François GUILLET, Commissariat à l'Energie Atomique

**Expert system for the calibration of material constitutive models**

Stéphane QUILICI, Transvalor

**Resolving Cyclic Plasticity in Thermo-Mechanical FEM of Marine Engines with Microstructure - Aware Z-mat Material Models**

Rafael Arturo RUBIO RUIZ, Wärtsilä

**Modeling architected materials with Z-set**

Justin DIRRENBARGER, Conservatoire National des Arts et Métiers

Pitch session

**HEATING AND THERMAL MODELING****Importance of radiative heat transfer in industrial furnaces: Insights from numerical simulation of single and multi-part heating**

Marc MORENO, Transvalor

**FORGE® Technical presentation**

Coming soon

**Numerical modeling of multifrequency induction hardening process**

Baraa QADDAH, IRT M2P

Coming soon

Coming soon

**Shape Comparison Tool: Alignment of CAD Models with Tomographic Scans for Numerical Simulation and Experimental Validation**

Krushna SHINDE, Transvalor

Please note that the program is preliminary and may be revised.

**WISH TO EXTEND DISCUSSIONS?**

Book your speedmeeting with a Transvalor expert today



THURSDAY, OCTOBER 1<sup>st</sup>

# PROGRAM | DAY 3

TRANSVALOR INTERNATIONAL SIMULATION DAYS

## AMPHITHEATER

## ELLA FIDZGERALD ROOM

8:30AM  
8:55AM  
9:00AM  
9:30AM  
10:00AM  
10:25AM  
10:55AM  
11:20AM  
11:45AM  
12:10PM  
12:35PM  
13:55PM  
2:15PM  
2:40PM  
3:05PM  
3:30PM  
3:55PM  
4:15PM

Welcome Coffee, Posters and Exhibition time - EXHIBITOR HALL

Introduction  
Laëtitia PEGIE, Transvalor

Simulation of static and dynamic strain ageing effects in industrial alloys and structures  
Samuel FOREST, Centre des Matériaux Mines Paris PSL CNRS

Leveraging Machine Learning in Computational Materials Science to Accelerate High-Fidelity Simulations involving Microstructure Prediction  
Marc BERNACKI, Mines Paris PSL

Keynote  
Coming soon

Coffee Break, Posters and Exhibition time - EXHIBITOR HALL

### MICROSTRUCTURE MODELLING

### WELDING MODELLING

DIGIMU® NxT 1.0 beta : A revolution in Grain Size Prediction Simulations  
Pascal DE MICHELL, Transvalor

Ultrasound Inspection of welds using weld microstructure data  
Andreas SCHUMM, EDF

DIGIMU® Study in the Industrial Context of INC7 18 Subsolvus Processes at OTTO FUCHS KG  
Michele MATSUO, Otto Fuchs KG

Toward a modeling approach of dissymmetric linear friction welding  
Mathieu TOUBOUL, SAFRAN AIRCRAFT ENGINES

Understanding material behavior in hot metal forming under transient conditions through microstructure modeling using DIGIMU®  
Nadine ELEKYABI, Institute of Metal Forming (IBF) RWTH Aachen University

Finite Element Simulation of multi-material joining processes with FORGE® NxT 4.1  
Romeu GOMEZ, IRT M2P

Experimental Study and Numerical Simulation of Continuous Dynamic Recrystallization Using DIGIMU®: Application to 2xxx Aluminium Alloys  
Lahcen ABARAY, CEMEF, Mines Paris - PSL University

Resistance and Electrically Assisted Welding Processes - Benefits of Numerical Simulation  
Stéphane MARIE, Transvalor

Lunch break - DINING ROOM

Pitch session

Pitch session

### MATERIAL FATIGUE, DURABILITY AND SAFETY

### COMING SOON

Coming soon

Application of Zcracks to Airbus aerostructures - Optimization of fatigue test monitoring & prediction of a propagation path in a complex assembly  
Jérôme ROUSSET & Teddy GOUT, Airbus Operations SAS

Validation of an optimal prediction method for chip formation and cutting temperature in machining  
Shusuke NAITO, TOYOTA Motor Corporation

Three-Dimensional Crack Propagation Analysis of Surface-Hardened Gears under Contact and Centrifugal Loading: Numerical Predictions and Experimental Correlations  
Regis KENKO, Safran Transmission Systems

Development and Validation of a 2D Finite Element Model for Flow Forming Process Optimization of Thin-Walled Components  
Aitor NAVARRO, Tubacex Innovation

Towards Efficient 3D Crack Growth Simulations  
Florian MERAY, Safran Aircraft Engines

Coming soon

Coming soon

Coffee Break, Posters and Exhibition time - EXHIBITOR HALL

Best presentation Award & Closing remarks  
Nicolas MORISE, Transvalor

Please note that the program is preliminary and may be revised.



## WISH TO EXTEND DISCUSSIONS?

Book your speedmeeting with a Transvalor expert today

