

## SCHEDULE

	Wednesday, December 2	Thursday, December 3	
<b>8.50 – 9.00</b>	<b>Opening</b>		
9.00 – 9.40	Hartmann	Bonilla	
9.40 – 10.20	Mehrmann	Sanarico	
10.20 – 11.00	Lünnemann	Korell/Wolny	
<b>11.00 – 11.20</b>	<b>Coffee Break</b>	<b>Coffee Break</b>	
11.20 – 12.00	Strahilov	Arnold	
12.00 – 12.40	Simeon	Burger/Dörlich	
<b>12.40 – 13.40</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	
13.40 – 14.20	Carpio	Jakovetic	
14.20 – 14.50	Weissen	Zeegers	Simioni
14.50 – 15.20	Morelli	Ionescu	Vaamonde-Rivas
<b>15.20 – 15.40</b>	<b>Coffee Break</b>	Ebeling-Rump	Sommer
15.40 – 16.20	Bueno	Edelvik	
16.20 – 17.00	Formaggia	<b>Closing</b>	
17.00 – 17.30	Vynnycky		

## **Presentations ECMI Webinar, December 2-3, 2020**

### *invited talks*

**Martin Arnold** (Martin Luther University Halle-Wittenberg, Halle (Saale)):

Modular modelling, modular simulation, modular time integration

**Luis Bonilla** (Universidad Carlos III de Madrid, Leganes):

Topological data analysis in industry and biomedicine

**Rikardo Bueno Zabalo** (Basque Research & Technology Alliance (BRTA), Mendaro):

The Manufacture Strategic Research and Innovation Agenda 2030

**Lilli Burger/Vanessa Dörlich** (Fraunhofer Institute for Industrial Mathematics ITWM, Kaiserslautern):

Data based modeling and identification of effective stiffness parameters of cable bundles

**Ana Carpio** (Universidad Complutense de Madrid):

Optimization approach to digital holography

**Fredrik Edelvik** (Fraunhofer-Chalmers Centre for Industrial Mathematics, Gothenburg):

Virtual paint shop – Simulation of oven curing

**Luca Formaggia** (Politecnico di Milano):

Some examples of collaboration with industry by the MOX Laboratory of Politecnico di Milano

**Dusan Jakovetic** (University of Novi Sad):

Optimization and machine learning for Industry 4.0: Some challenges, use cases, and lessons learned

**Dirk Hartmann** (Siemens AG, Munich):

Mass Customization and Industry 4.0 – Mathematical challenges for real-time manufacturing process simulation

**Jens Korell/Patricia Wolny** (Project Management Agency Karlsruhe (PTKA)):

Manufacturing in HORIZON EUROPE

**Pascal Lünemann** (Fraunhofer Institute for Production Systems and Design Technology, Berlin):

The application of digital twins: The current state of industry

**Volker Mehrmann** (TU Berlin):

Hierarchical energy based modeling for digital twins

**Maurizio Sanarico** (SDG Group, Milan):

Math & Data Science in action: Some real cases

**Bernd Simeon** (TU Kaiserslautern):

Towards digital twins in rotating machinery

**Anton Strahilov** (EKS InTec GmbH, Weingarten):

From virtual plant to digital shadow – practical experience

*contributed talks*

**Moritz Ebeling-Rump** (Weierstrass Institute (WIAS), Berlin):

Topology optimization under local volume constraints for improved buckling behavior

**Adela Janeta Ionescu** (University of Craiova):

Statistical design of experiments: Choosing the computational way in approaching big models

**Umberto Morelli** (Instituto Tecnológico de Matemática Industrial, Santiago de Compostela):

Real-time estimation of boundary condition in steel continuous casting molds

**Paolo Mario Simioni** (Moxoff S.p.A., Milan):

Reduced order modelling of a packaging system

**David Sommer** (Weierstrass Institute (WIAS), Berlin):

A dynamic programming approach for robust receding horizon control in continuous systems

**Manuel Vaamonde-Rivas** (Instituto Tecnológico de Matemática Industrial (ITMATI), Santiago de Compostela):

Statistical models for predictive maintenance: PreCoM project

**Michael Vynnycky** (University of Limerick):

Modelling for the continuous casting of steel

**Jennifer Weissen** (University of Mannheim):

Optimization of manufacturing systems using digital twins

**Mathé Zeegers** (Centrum Wiskunde & Informatica (CWI), Amsterdam):

Task-driven learned hyperspectral data reduction using end-to-end supervised deep learning