<table>
<thead>
<tr>
<th>Time</th>
<th>Wednesday, December 2</th>
<th>Thursday, December 3</th>
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<tbody>
<tr>
<td>8.50 – 9.00</td>
<td><strong>Opening</strong></td>
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<tr>
<td>9.00 – 9.40</td>
<td>D. Hartmann</td>
<td>L. Bonilla</td>
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<tr>
<td>9.40 – 10.20</td>
<td>V. Mehrmann</td>
<td>M. Sanarico</td>
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<tr>
<td>10.20 – 11.00</td>
<td>P. Lünnemann</td>
<td>J. Korell/P. Wolny</td>
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<tr>
<td>11.00 – 11.20</td>
<td>Coffee Break</td>
<td>Coffee Break</td>
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<tr>
<td>11.20 – 12.00</td>
<td>A. Strahilov</td>
<td>M. Arnold</td>
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<tr>
<td>12.00 – 12.40</td>
<td>B. Simeon</td>
<td>L. Burger/V. Dörlich</td>
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<tr>
<td>12.40 – 13.30</td>
<td>Lunch Break</td>
<td>Lunch Break</td>
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<tr>
<td>13.30 – 14.10</td>
<td>A. Carpio</td>
<td>D. Jakovetic</td>
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<tr>
<td>14.10 – 14.35</td>
<td>J. Weissen</td>
<td>P.M. Simioni</td>
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<tr>
<td>14.35 – 15.00</td>
<td>U. Morelli</td>
<td>M. Ebeling-Rump</td>
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<tr>
<td>15.00 – 15.25</td>
<td>M. Zeegers</td>
<td>M. Vaamonde-Rivas</td>
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<td>15.25 – 15.50</td>
<td>A.J. Ionescu</td>
<td>D. Sommer</td>
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<tr>
<td>15.50 – 16.10</td>
<td>Coffee Break</td>
<td>Coffee Break</td>
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<tr>
<td>16.10 – 16.50</td>
<td>R. Bueno Zabalo</td>
<td>F. Edelvik</td>
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<td>16.50 – 17.30</td>
<td>L. Formaggia</td>
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<tr>
<td>17.30 – 17.55</td>
<td>M. Vynnycky</td>
<td>Closing</td>
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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 Manufuture 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 Lünnemann** (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