# Annual users’ meeting – September 15th, 2021

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
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| 8:00 – 9:00 | Welcome (on-site) and connection (remote)                          | B. Salha  
Chief Technical Officer,  
Head of Research and Development, EDF                                                     |
| 9:00-9:20 | Introduction and opening remarks                                  |                                                                                               |
| 9:20-9:50 | V7.0 NEWS                                                        | code_sature & neptune_cfd team                                                                 |

## Session 1

<table>
<thead>
<tr>
<th>Time</th>
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| 9:50-10:10 | Atmospheric Digital Twins                                             | M. Charwath  
Research Engineer, EDF R&D                                                                   |
| 10:10-10:30 | Application of Code_Saturne to flow and heat transfer in turbomachinery rotating disc cavities | R. Wang  
PhD. Student, Faculty of Engineering and Physical Sciences, University of Surrey         |
| 10:30-10:50 | Modelling buccopharyngeal droplet dispersion in an intensive care unit for Covid patients | M. Ferrand  
Deputy Director of CEREA LAB, EDF R&D & ENPC                                                   |

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<tbody>
<tr>
<td>10:50-11:10</td>
<td>Morning Break</td>
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## Session 2

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<tr>
<th>Time</th>
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| 11:10-11:30 | Asynchronous I/O and in-situ visualization in Code_Saturne using the Damaris middleware library. | J. Bowden  
Research Engineer, KerData Team, INRIA                                                       |
| 11:30-11:50 | In Situ Analysis with ParaView Catalyst                               | F. Mazen  
Scientific Visualization Expert Developer and Team Leader at Kitware Europe                  |
| 11:50-12:10 | Yuansuan SaaS project in China and code_sature application for aerosol transmission of HVAC system for airport | L. Zhou  
Technical Manager, EDF China & YuanSuan                                                       |

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<tr>
<th>Time</th>
<th>Lunch break</th>
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<tr>
<td>12:10-14:00</td>
<td>Lunch break</td>
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<tr>
<td>Time</td>
<td>Session 3</td>
<td>Speaker</td>
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<td>14:00-14:30</td>
<td>Pushing the limits of NEPTUNE_CFD from regional (Tiers 2) to European (tiers-0) HPC centers: an application to fluidized-bed reactors</td>
<td>H. Neau</td>
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<tr>
<td>14:30-14:50</td>
<td>Particle in fluidized bed solar receiver</td>
<td>R. Ansart</td>
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<tr>
<td>14:50-15:10</td>
<td>Counter-Current flow Limitation phenomenon modelisation using Neptune_cfd</td>
<td>J. Bonnici</td>
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<tr>
<td>15:10-15:30</td>
<td>Afternoon break</td>
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<tr>
<td>15:30-15:50</td>
<td>Verification and Validation of a second-order variable-density scheme for fire safety applications</td>
<td>L. Ma</td>
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<tr>
<td>15:50-16:10</td>
<td>Multi-physics Applications of code_saturne and SALOME to Fire and Conjugate Heat Transfer in Industrial Settings</td>
<td>N. Tonello</td>
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<td>16:10-16:30</td>
<td>Numerical simulation of transient mixed convection sodium flow experiments</td>
<td>C. Geffray</td>
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**Closing**

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<thead>
<tr>
<th>Time</th>
<th>Session 4</th>
<th>Speaker</th>
<th>Institution</th>
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<tr>
<td>16:30-17:00</td>
<td>Closing remarks</td>
<td>J.P. Chabard</td>
<td>EDF R&amp;D Scientific Director + code_saturne &amp; neptune_cfd team</td>
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