**MUMPS User Days**  
**Thursday, June 1st and Friday, June 2nd 2017**  
**Inria centre, Montbonnot Saint-Martin (near Grenoble, France)**

### Programme

#### Thursday, June 1st

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<tr>
<td>8.30 - 8.45</td>
<td>Registration and welcome coffee</td>
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<td>8.45 - 9.00</td>
<td>Welcome and presentation of the two day meeting</td>
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| 9.00 - 9.30| Patrick Amestoy (INPT(ENSEEIHT)-IRIT), Abdou Guermouche (Univ. de Bordeaux), Jean-Yves L'Excellent (Inria-LIP-ENS Lyon)  
MUMPS overview and recent features                      |
| 9.30 - 10.00| Olivier Boiteau (EDF Lab Paris-Saclay, France)  
Feedback in the use of MUMPS in EDF codes                |
| 10.00 - 10.30| Théo Mary (University of Toulouse, France)  
On the comparison of sparse multifrontal hierarchical and Block Low-Rank solvers |
| 10.30 - 11.00| Coffee Break                                                            |
| 11.00 - 11.30| Eveline Rosseel (FFT-Msc_Software, Belgium)  
Improving (aero/vibro-)acoustic simulations using MUMPS: evaluation of Block Low-Rank factorizations |
| 11.30 - 12.00| Marie Durand (MUMPS Consortium/Inria, France)  
Discussion of MUMPS parallel performance in multithreaded environments |
| 12.00 - 12.30| Kostas Sikelis (Altair, Greece)  
Comparison of 32bit vs 64bit integer MUMPS in Optistruct            |
| 12.30 - 14.30| Lunch                                                                   |
| 14.30 - 15.00| Daniil Shantsev (EMGS, Norway)  
Large-scale 3D Controlled source EM modeling with a Block Low-Rank MUMPS solver |
| 15.00 - 15.30| Gilles Moreau (MUMPS Consortium/LabEx MILYON/Inria, France)  
Recent advances on solution phase of sparse solvers with multiple RHS |
| 15.30 - 16.00| Break                                                                  |
| 16.00 - 16.30| Alfredo Buttari (CNRS, France)  
gr_mumps: a runtime-based Sequential Task Flow parallel solver |
| 16.30 - 17.00| François Courteille (NVIDIA, France)  
Programming heterogeneous architecture with libraries: a survey of NVIDIA linear algebra libraries |
| 17.00 - 17.30| Patrick Amestoy (INPT(ENSEEIHT)-IRIT), Abdou Guermouche (Univ. de Bordeaux), Jean-Yves L'Excellent (Inria-LIP-ENS Lyon)  
MUMPS 5.1, perspectives and discussions                   |
| 19.30 - 22.00| Banquet at "Le Garage" (134 Chemin de l’étoile 383330 Montbonnot)   |
Friday, June 2nd

9.00 - 9.30  Bob Lucas (LSTC, USA)
Block Low-Rank approximations in LS-DYNA

9.30 - 10.00  Augustin Parret-Fréaud (SAFRAN, France)
Robust domain decomposition methods for high performance computation of
industrial structures

10.00 - 10.30  Pierre Jolivet (CNRS, France)
MUMPS on thousands of cores: feedback on the use of direct solvers in domain
decomposition methods

10.30 - 11.00  Coffee Break

11.00 - 11.30  Rémy Perrin-Bit (Altair, France)
Brief history of time in Flux

11.30 - 12.00  Luis E. García Castillo (University Carlos III of Madrid, Spain)
Higher-Order Finite Element Code for Electromagnetic Simulation on HPC
Environments

12.00 - 12.30  Patrick Demichel (HPE, France)
The Machine and genZ implications for extreme scale solver problems

12.30 - 14.00  Lunch

14.00 - 14.30  Yuri Feldman (Ben-Gurion University, Israel)
Two phase flow simulations based on Immersed boundary method, by utilizing
MUMPS solver

14.30 - 15.00  Closing session (MUMPS team)

Credits

This event is supported by:

INPT-ENSEEHT  Inria  MUMPS-Consortium  IRIT

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