

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

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