IWR Colloquium Winter Term 2018 / 2019

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Mathematikon, Conference Room / 5th Floor
Im Neuenheimer Feld 205, 69120 Heidelberg

Speaker:
Prof. Frédéric Nataf
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Title:
"Domain Decomposition Methods: Theory and Applications "

Abstract:
Domain decomposition methods are a popular way to solve large linear systems on parallel architectures. These methods are based on a divide/conquer strategy. Theoretical results and numerical investigations (over a billion unknowns) for porous media flows, linear elasticity equations confirm their robustness. Numerical results for large scale harmonic wave propagation phenomena will be shown. These results are obtained via an implementation in a Domain Specific Language devoted to the finite element method.

Website Prof. Nataf: www.ljll.math.upmc.fr/nataf/
Website IWR-Colloquium: www.iwr.uni-heidelberg.de/iwr-colloquium