

Biographical Sketch

Maksims Abalenkovs

Maksims Abalenkovs is a Research Software Engineer at the Hartree Centre in STFC Daresbury. He is a recent post-doctoral research associate and a visiting academic in the Department of Mathematics at the University of Manchester.

His main areas of expertise lie within the computational domain. A student of Fumie Costen and Jean-Pierre Bérenger, during his PhD project Maksims specialised in the Finite-Difference Time-Domain method, in particular on the extension of Huygens Subgridding to Frequency-Dependence. In a subsequent post-doctoral project with Professor Francesco Andriulli at the IMT Atlantique in Brest, France he prototyped the Fast Multipole Method for Electroencephalography applications. He has just completed a post-doctoral project under the supervision of Professor Jack Dongarra, in which Maksims was a member of a talented and dynamic team splitting his time between three UK and European projects (SERT, INTERTWinE and NLAFFET). His main contributions included the mixed precision matrix factorisations for the PLASMA numerical library, LU factorisation with StarPU and a generic matrix casting approach for stencil-based methods.

During his doctoral and post-doctoral projects, Maksims has lectured and led practical tutorials for a number of mathematics and engineering subjects. He has successfully published his research outcomes in world-leading academic journals (such as IEEE and ACM) and presented at renowned international conferences (IEEE AP-S International Symposium and EuCAP). Dr Abalenkovs successfully (co-)supervised individual students and student groups at all levels from foundation to post-doc. Maksims is an active member of the IEEE, IET and SIAM and reviews articles in his research areas on a regular basis.