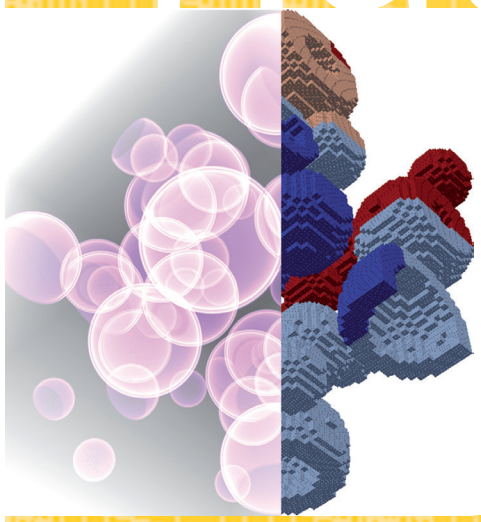
hsm
HAUSDORFF SCHOOL FOR ADVANCED STUDIES IN MATHEMATICS

UNIVERSITÄT BONN

Hausdorff School



The p4est software for parallel AMR

Dates: July 20-24, 2020
Organizers: Carsten Burstedde, Lucas Wilcox, and Tobin Isaac
Location: Lipschitz-Saal and CIP pool, Endenicher Allee 60, Bonn

Adaptive mesh refinement (AMR) is a key technique for the numerical solution of partial differential equations. When using AMR for large-scale simulation, computation is performed in parallel and mesh data becomes distributed, which has motivated extensive algorithms research. One of the most scalable and well-known sets of algorithms is implemented in the p4est software. This Hausdorff School will provide the unique opportunity to gain in-depth knowledge from p4est's principal authors and to learn about the use of p4est via three separate, application-oriented software projects, namely PETSc, deal.II, and ForestClaw.

Key Speakers:
Carsten Burstedde *(Bonn)*
Tobin Isaac *(Georgia Institute of Technology, Atlanta)*
Lucas C. Wilcox *(Naval Postgraduate School, Monterey)*

Additional Speakers:
Donna Calhoun *(Boise State University)*
Timo Heister *(Clemson University)*

We will offer a combination of theoretical lectures, software demonstrations, and hands-on tutorials. Experience has shown that algorithms are understood more deeply if they are exercised by the audience, and that actively working on software examples substantially furthers the know-how and the capabilities of the participants.

Call for participation: Potential participants are kindly requested to submit a CV, a list of their publications using p4est and a sentence or two on their current p4est-related interests/projects. Please use the online application form at **http://www.hcm.uni-bonn.de/p4est2020/**. Financial support for PhD students and postdocs is available (please include a letter of recommendation in your application).

The deadline for applications is: **February 29, 2020**. Please note: Notwithstanding their application for financial support every participant has to register beforehand. You will be notified in due time about whether a participation / financial support is possible.