



International Max Planck Research School (IMPRS) for Astronomy & Cosmic Physics at the University of Heidelberg



Heidelberg Summer School 2012, September 10 – 14

Computational Astrophysics: Physical Foundations & Numerical Techniques

IMPRS Heidelberg* invites to the 7th Heidelberg Summer School.

This school covers important topics in computational astrophysics, highlighting both the physical foundations and the numerical techniques for simulations of the formation and evolution of cosmic structures on a variety of scales. The primary lecture courses will cover N -body techniques for collisionless and collisional systems, numerical fluid dynamics with particle-based and mesh-based techniques, magnetohydrodynamics, radiative transfer, as well as modern trends in high-performance computing techniques. The program is complemented with short lectures on topics such as chemical reaction networks, kinetic approaches, or special matrix solvers.

Invited key lecturers:

Dominique Aubert (University of Strasbourg)

Walter Dehnen (University of Leicester)

Cornelis Dullemond (University of Heidelberg)

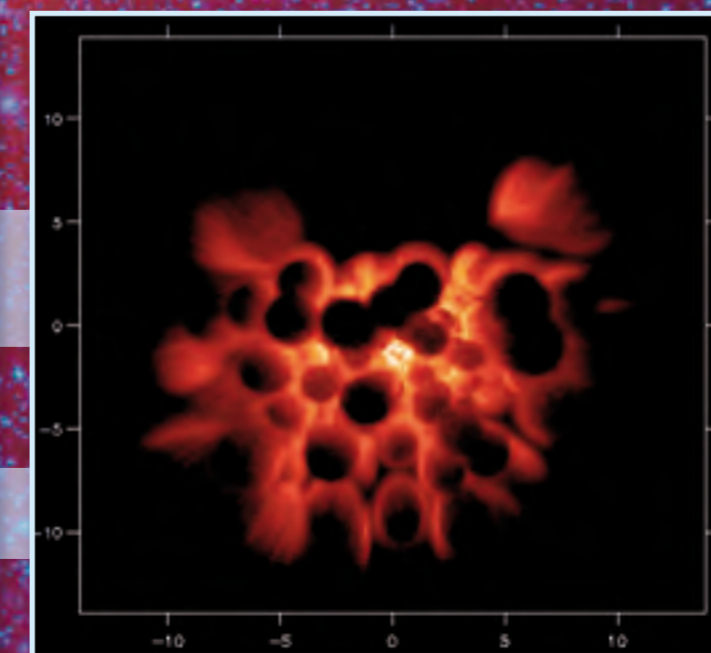
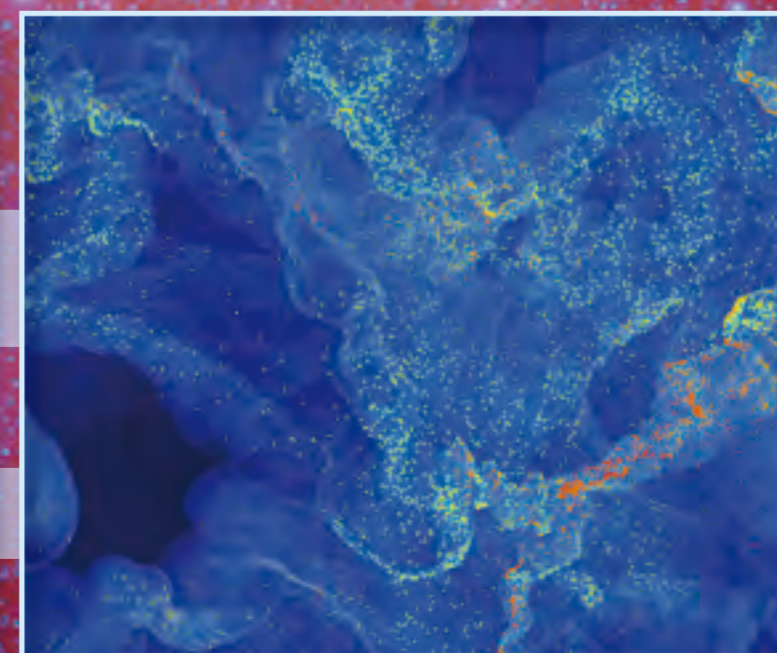
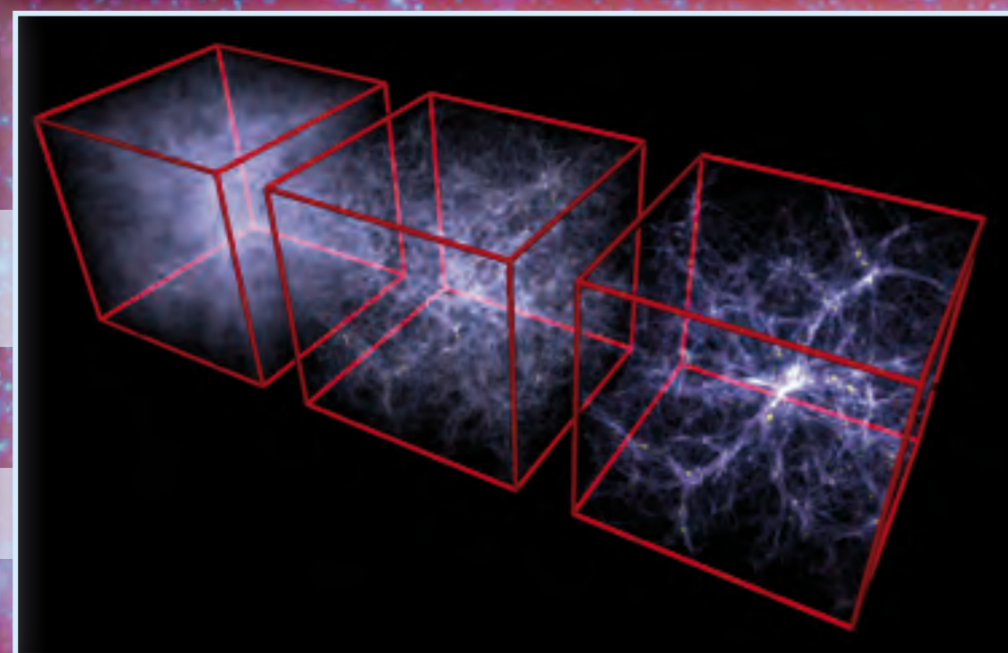
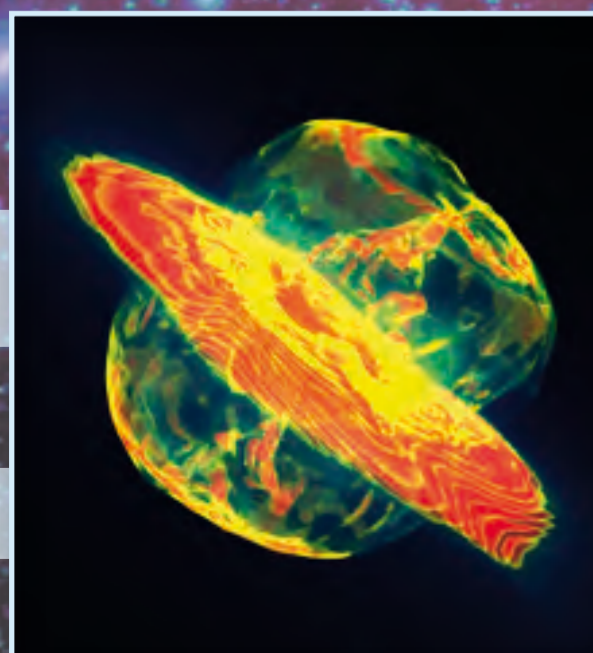
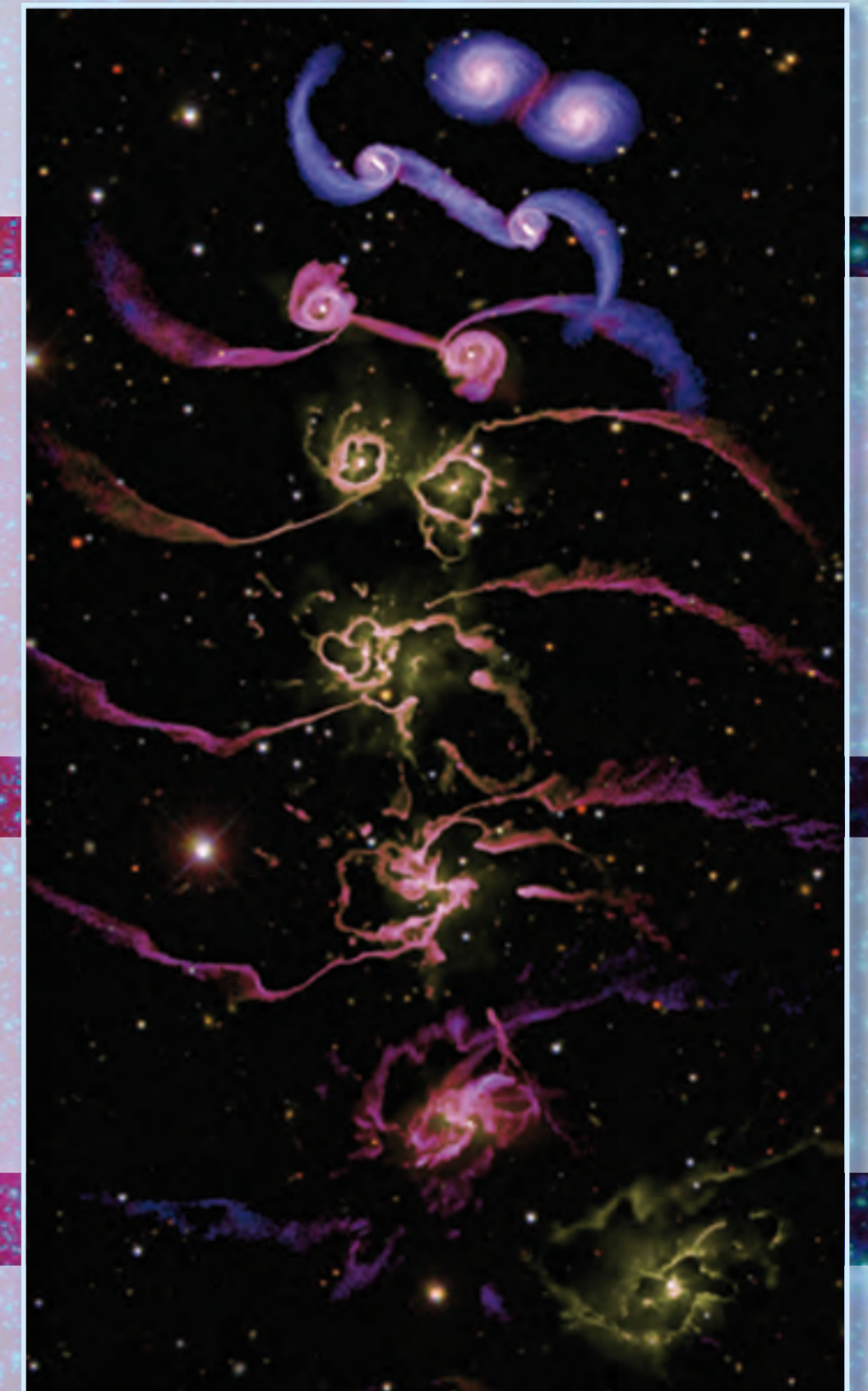
Daniel Price (Monash University)

Romain Teyssier (CEA Saclay and University of Zurich)

Deadline for registration is July 1, 2012

Information & registration: www.mpia.de/imprs-hd/

e-mail: imprs-hd@mpia.de



*) IMPRS-HD is an independent part of the Heidelberg Graduate School for Fundamental Physics, HGSFP

Credits: Kees Dullemond, Christoph Federrath, Ralf Klessen, Lukas Konstandin, Thomas Peters, Daniel Rice, Stefan Rosswog, Volker Springel