University of Southampton

Hans Fangohr

3 minute presentation of each site by its leader (main themes, expertise, resources)

self-introduction of each participant (involvement in particular projects, specific expertise or interests)

Southampton
350 km from Paris

Expertise and tools Southampton

- Research:

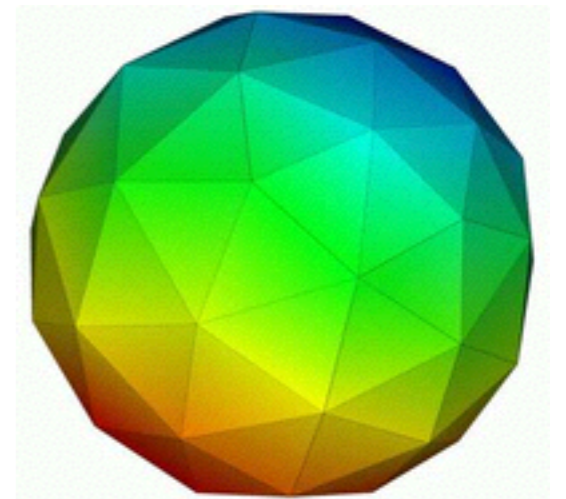 Python, C, IPython/Jupyter, Cython, Docker, Virtualbox, VTK, py.test, git, mercurial, Jenkins, C++, OCaml, …

- Teaching (undergraduate level only):

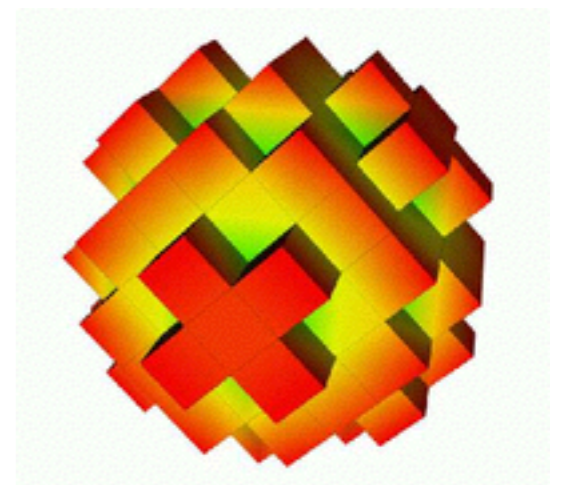 Python, C, IPython, Cython, py.test, …

Computational Micromagnetics

- Developed open source Nmag Software

  - Python user interface

  - OCaml finite element library (nsim)

 - Symbolic operations and code generation

  - http://nmag.soton.ac.uk

Finite Elements

Finite Differences

Resource: Computational Modelling Group

- All academics at Southampton doing computational science and engineering

- 200 professors and 600 active PhD students

- University supercomputer "Iridis" (12,320 cores, 250 Tflops) and other HPC machines

- http://cmg.soton.ac.uk
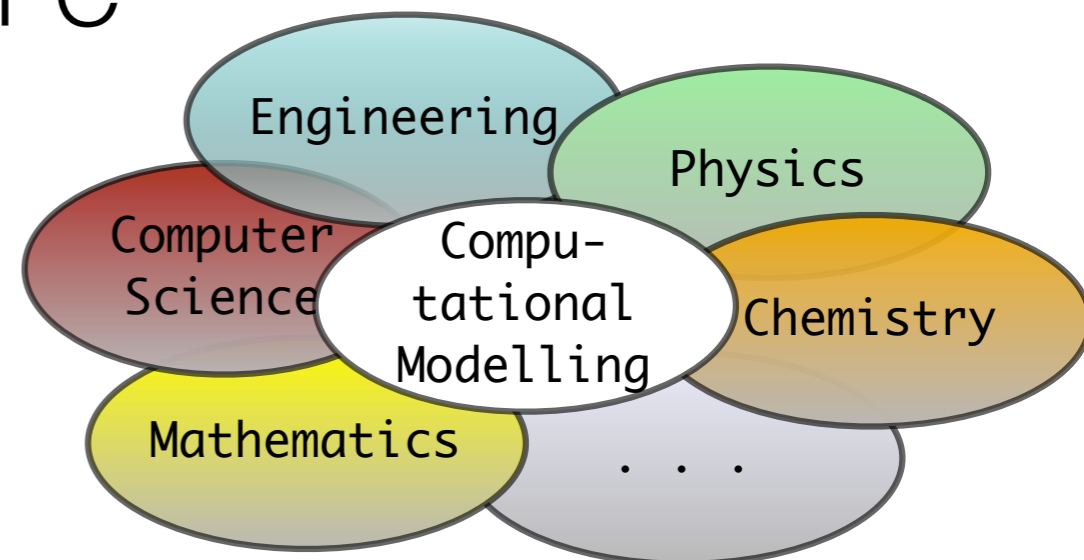
Resource: Doctoral Training Centre in Next Generation Computational Modelling

- 14 million Euro

- ~75 PhD students (15 every year for 5 years)

- 1 year training in computational methods and software engineering

- 3 year research PhD project

- http://ngcm.soton.ac.uk

Computational Scientist
Hans Fangohr

http://www.soton.ac.uk/~fangohr
@ProfCompMod

- Degree in Physics and PhD in High Performance Computing

- Professor for Computational Modelling

- Interests:

  - Software Engineering for Computational Science

  - Application focus in magnetic materials & superconductivity

- Head of Computational Modelling Group and
  Director of Centre for Doctoral Training in Next Generation
  Computational Modelling

Numerical relativist
Ian Hawke

http://www.personal.soton.ac.uk/ih3/ @IanHawke

- Degree in Physics and PhD in High Performance Computing

- Associate Professor in Mathematics

- Interests:

  - Computational Science

  - Numerical Relativity

- Co-Director of Centre for Doctoral Training in Next Generation Computational Modelling