

Computer Algebra and Particle Physics

Sven-Olaf Moch

Universität Hamburg

– Computer Algebra and Particle Physics 2017, Hamburg, March 20, 2017 –

CAPP school

International School on Computer Algebra and Particle Physics CAPP 2017

20–24 March 2017
at University Hamburg

The CAPP school combines theory and practice in an advanced environment. It provides education and training of students and young researchers at graduate and Ph.D. level on central topics at the interface of modern computer algebra and particle physics. The courses are accompanied by exercises and practical hands-on training with modern software.

Lectures and Courses

Thomas Hahn (MPI Munich)

Mathematica, FeynArts and FormCalc and all that

Sven-Olaf Moch (Uni Hamburg)

Introduction to Computer Algebra

Tord Riemann (DESY)

Peter Marquard (DESY)

Introduction to the calculation of Feynman integrals

Jos Vermaseren (Nikhef)

Introduction to FORM

Organizing Committee: S. Moch (University Hamburg), P. Marquard (DESY), Secretary E. Monteiro Duarte (University Hamburg)

The school fee is 100 Euro. Registration deadline is 3 March 2017.

For more details and in order to register, please go to the school home page <http://indico.desy.de/event/CAPP2017>

CAPP 2017

History

- Seventh event in a bi-annual series (started 2005 in DESY, Zeuthen)
- Second time to be hosted in Hamburg

Program of CAPP 2017

- Introduction to Computer Algebra S.M.
- Introduction to FORM J. Vermaseren
- Mathematica, FeynArts and FormCalc and all that T. Hahn
- Introduction to the calculation of Feynman integrals P. Marquard
T. Riemann
- Introduction to differential equations O. Gituliar

<http://indico.desy.de/event/CAPP2017>

Technicalities (I)

- Support
 - Elizabeth Monteiro Duarte (secretary)
 - S.M.
- Work
 - your equipment:
notebook with Maple, Mathematica and compilers (Fortran, C, C++)
 - WLAN access: CAPP2017
WPA/WPA2-PSK: (see your folder)
- Food
 - coffee breaks in Foyer
 - lunch in cantine
(discount for Hamburg Univ. students: show your student ID)
 - social dinner on Thursday evening 19:00 hrs at Restaurant Lambert
www.lambert-hamburg.de

Social dinner

- Thursday evening 19:00 hrs at Restaurant Lambert
<http://www.lambert-hamburg.de>
- Bus No.1 (westbound) from *Zum Hünengrab (DESY)* to *Langelohstraße*

The screenshot shows a Google Maps interface with a bus route highlighted in blue. The route starts at Bockhorst 183 and ends at Notkestieg 12A. A callout box indicates a 12-minute bus ride with a 10-minute walk. The map shows the surrounding area, including the International School of Hamburg (ISH) and Lise-Meitner-Park. The browser address bar shows the URL: <https://www.google.de/maps/dir/53.5/33/78.9.8804929/53.5/28809.9.8430/0//@53.5/2695/9.8539821,15z/data=!4m2!4m1!3e3>. The browser title is "Notkestieg 12A, 22607 Hamburg nach Bockhorst 183, 22589 Hamburg - Google Maps - Mozilla Firefox".

Technicalities (II)

- Hamburg University students
 - Credit points for M.Sc. course will be granted
 - Eligibility for grading:
 - attendance and active participation during the week
 - written report (5-10 pages \LaTeX) on a lecture topic of your choice (teams of two are OK)
 - reports to be handed in as pdf-file by email sven-olaf.moch@desy.de
deadline: Friday, April 7th, 2017, at 18:00 hrs

Sponsors

- Universität Hamburg
- DESY
- Helmholtz Alliance *Physics at the Terascale*

