

First Circular

Conference Scope & Goals

SHIM 2015 will be the 9th International Symposium in a series started in Caen (France) in 1989. The conference brings together scientists performing research with **high-energy heavy ions** in various fields, including radiation effects in solids, atomic physics, plasma physics, radiation biology and medicine, and nanotechnology. SHIM focuses on basic as well as on applied research, including both theoretical and experimental aspects.

Format of Symposium

The duration of the Symposium will be three and a half days (18 - 21 May 2015). The sessions will comprise invited lectures as well as oral and poster presentations. There will be no parallel sessions. Proceedings are planned as special issue of Nuclear Instruments and Methods B.

Topics

Interactions of Swift Heavy Ions with Gases, Liquids, Solids, and Plasmas

Electronic excitation, ionization, and charge transfer processes; spectroscopy of electrons, photons, and recoil ions; stopping powers and local energy deposition; conversion of electronic excitation energy into atomic motion; dynamics and relaxation of electronic excitations and atomic displacements.

Material Modifications

Mechanisms of track formation; ultrafast timescale damage processes; creation of point defects; defect clusters, and nanoparticles; phase transitions and recrystallization; sputtering and mixing; materials response in extreme environments; high-cycle thermo-mechanical stresses and material fatigue.

Chemical and Biological Radiation Effects

Beam-induced processes in organic and inorganic materials, radiolytic yields, radiobiology and tumor therapy with ion beams.

Applications

Structuring of materials; ion-track based nanostructures; heavy-ion micro- and nanotechnology; effects of swift heavy ions on electronic devices; geological, astrophysical and other applications based on high-energy accelerators.

Conference Chairpersons

C. Trautmann (GSI, Darmstadt, Germany)
H. Rothard (CIMAP, Caen, France)

International Scientific Committee

P. Apel (Dubna, Russia)	A. Itoh (Kyoto, Japan)
D. Avasthi (Delhi, India)	A. Iwase (Osaka, Japan)
E. Balanzat (Caen, France)	X.M. Ma (Lanzhou, China)
W. Bolse (Stuttgart, Germany)	R. Papaleo (Porto Alegre, Brazil)
S. Bouffard (Caen, France)	M. Toulemonde (Caen, France)
D. Dauvergne (Lyon, France)	C. Trautmann (Darmstadt, Germany)
M. Durante (Darmstadt, Germany)	A. Warczak (Krakow, Poland)

Local Organizing Committee

I. Alber	T. Litvinova	A. Spende	M.E. Toimil-Molares
M. Bender	S. Lüttges	H. Rothard	M. Tomut
S. Hagmann	C. Malot	S. Seubert	C. Trautmann
J. Krieg	L. Movsesyan	D. Severin	G. Taucher-Scholz
K. Kupka	P. Neumayer		

Venue

The conference will be held in the convention center *Darmstadtium* in the center of Darmstadt in close neighborhood to the *Hochzeitsturm* (Wedding Tower) and to the famous *Mathildenhöhe*, the former center of *Jugendstil* (Art Nouveau).

Travel Information

Darmstadt is located 30 km south of Frankfurt. Arriving at the Frankfurt International Airport, the conference site can be reached in 30 minutes by car or in 40-50 minutes by public transport (Airliner). Darmstadt is well connected by train with all major cities in central Europe. The central railway station *Darmstadt Hauptbahnhof* is within 10 minutes' reach by public transportation from *Darmstadtium*.

Accommodation

We ask all SHIM participants to arrange their own hotel reservation directly with the hotel of their choice. A list including hotels in all price categories will be posted on the conference website. Some of the hotels will offer special rates for conference participants with early registration.

Contact Information/Conference Office

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Important dates

Abstract submission deadline: **January 15, 2015**
Notification of acceptance: **February 15, 2015**

Registration Fees:	450 Euro	before March 15, 2015
	500 Euro	after March 15, 2015
	250 Euro	for students (no proceedings)

The fee includes proceedings, excursion, conference dinner, and lunches.

Further information including payment procedures will be available on the SHIM homepage <http://shim2015.gsi.de>