



Graduate Summer Institute "Complex Plasmas"

July 30 – August 8 2008
Stevens Institute of Technology, Hoboken, NJ (USA)

organized by

SFB-TR24 "Fundamentals of Complex Plasmas" Greifswald/Kiel (Germany)
and Stevens Institute of Technology, Hoboken, NJ (USA)

Motivation

Complex plasmas are a modern research area in plasma science. Such plasmas differ from conventional high-temperature plasmas in several ways: i) they may contain additional species, including nanometer to micrometer sized particles, negative ions, molecules and radicals and ii) exhibit strong correlations (e.g. Dusty plasmas) or quantum effects. Numerous applications of particle containing plasmas and microplasmas are already emerging.

The school will provide material not covered in standard plasma physics courses together with new research results and an overview on technological applications. It will consist of tutorial lectures by leading experts in the field, detailed presentations on modern developments given by young researchers, seminars and computer labs.

Topics

- **Dusty and strongly coupled plasmas**
- **Reactive plasmas**
- **Microplasmas**
- **Quantum plasmas**
- **Simulations**
- **Experimental Techniques**

Proceedings:

Lectures and other material will be published

Program Committee

Kurt Becker (Polytech. Univ. of N.Y.)
Michael Bonitz (Univ. Kiel), Co-chair
Norman Horing (Stevens Tech), Co-chair
Holger Kersten (Univ. Kiel)
Patrick Ludwig (Univ. Kiel)
Rainer Martini (Stevens Tech)
Jürgen Meichsner (Univ. Greifswald)
Andre Melzer (Univ. Greifswald)

Local Organizing Committee

Norman Horing (Stevens Tech)
Jose Lopez (St. Peter's College)
Rainer Martini (Stevens Tech) Chair
Wei-Dong Zhu (St. Peter's College)

Supported by

Deutsche Forschungsgemeinschaft via SFB-TR24
US National Science Foundation
US Air Force Office of Scientific Research
US Army Research Office (pending)

Attendance

Graduate Students, senior undergrads and postdocs specializing in plasma physics
Attendance will be limited to 60
Conference fee (including 1 copy of proceedings): 60 USD

Registration forms should be sent to

American/Non-European participants:

Prof. Norman Horing
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Deadline for applications: May 15 2008

Acceptance notification: June 1 2008

Financial Support

Support covering accommodation and travel will be available to American participants.

More information, workshop program and registration form can be found at the web page <http://theo-physik.uni-kiel.de/~bonitz/si08.html>