

ISSI WORKSHOP ON PARTICLE ACCELERATION IN COSMIC PLASMAS

PROGRAM

MONDAY 16.05.2011		
08:30-09:00	Registration in ISSI, Hallerstrasse 6, 1 st floor	
09:00	Welcome	
PART 1: ACCELERATED PARTICLES IN THEIR CONTEXTS		
	Chairman	André Balogh
09:15 - 09:30	Introduction to the Workshop: ISSI workshop series on the physics of cosmic plasmas	André Balogh
09:30 - 10:00	Accelerated particles in the magnetosphere	Dan Baker
10:00 - 10:30	Particle acceleration at the Earth's bow shock	Eberhard Möbius
<i>10:30-11:00 Coffee break</i>		
11:00 -11:30	Energetic particles in the solar corona	Säm Krucker
11:30 - 12:00	Accelerated particles in the heliosphere and at the termination shock	Richard Mewaldt
12:00 - 12:30	Suprathermal particle populations	George Gloeckler
<i>12:30-14:00 Lunch</i>		
	Chairman	Robert Lin
14:00-14:30	Acceleration in supernova shells	Jacco Vink
14:30-15:00	Particle acceleration in compact objects	Regis Terrier
<i>15:30-16:00 Coffee break</i>		
16:00 - 16:30	Terrestrial gamma ray flashes	Joe Dwyer
16:30 - 17:00	Gamma ray bursts	Neil Gehrels
<i>17:00 Welcome reception</i>		

PART 2: PHYSICAL PROCESSES AND THEORIES BEHIND PARTICLE ACCELERATION IN DIFFERENT COSMIC PLASMA ENVIRONMENTS

	Chairman	Peter Cargill
09:00 - 09:30	Acceleration processes in the magnetosphere	Lev Zelenyi & Anton Artemiev
09:30 - 10:00	The Earth's radiation belts	Robyn Millan
10:00 - 10:30	Acceleration processes in the Earth's magnetotail	Joachim Birn

10:30-11:00 Coffee break

11:00 - 11:30	Auroral particle acceleration	Marius Echim
11:30 - 12:00	Particle acceleration at the Earth's bow shock	David Burgess
12:00 - 12:30	Shock acceleration of solar energetic particles	Marty Lee

12:30-14:00 Lunch

	Chairman	Manfred Scholer
14:00 - 14:30	Suprathermal electron acceleration	Peter Yoon
14:30 - 15:00	Flare acceleration	Vahe Petrosyan
15:00 - 15:30	Particle Acceleration in a highly structured environment: the solar corona	Peter Cargill

15:30 - 16:00 Coffee break

16:00 - 16:30	Magnetic reconnection and particle acceleration in the heliosheath	James Drake
16:30 - 17:00	Acceleration of the Anomalous Cosmic Rays	Randy Jokipii
17:00 - 17:15	Clues to cosmic ray acceleration from optical observations	Eveline Helder
17:15 - 17:30	Escape of cosmic ray protons and electrons from supernova remnants	Yukata Ohira

WEDNESDAY 18.05.2011

	Chairman	Toshio Terasawa
09:00 – 09:30	SNR shock acceleration	Luke Drury
09:30 – 10:00	Pulsars as particle accelerators	John Arons
10:00 – 10:15	Long wavelength instability driven cosmic rays	Klara Schure
10:15 - 10:30	Solar nullpoint reconnection simulation	Gisela Baumann

10:30-11:00	<i>Coffee break</i>
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11:00 - 11:30	Acceleration in jets and UHCR	Guy Pelletier
11:30 - 12:00	GRB theory background and UHCR	Martin Pohl
12:00 - 12:30	Extragalactic accelerated particles, radio galaxies	Henric Krawczynski

12:30	<i>Lunch</i>
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14:00	Free time to visit the attractions of Bern Also: All ISSI facilities are available for small group discussions
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19:00	<i>Workshop dinner: Kornhauskeller restaurant, Bern</i>
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THURSDAY 19.05.2011

	Chairman	Andrei Bykov
09:00 – 09:30	Particle acceleration mechanisms	Len Fisk
09:30 - 10:00	Particle acceleration during solar flares	Loukas Vlahos
10:00 – 10:30	Turbulent reconnection	Alex Lazarian

10:30-11:00 Coffee break

11:00 - 11:30	Magnetic field amplification	Tony Bell
11:30 - 12:00	Relativistic shocks	Anatoly Spitkovsky
12:00 - 12:30	Relativistic reconnection	Yuri Lyubarsky

12:30-14:00 Lunch

	Chairman	John Raymond
14:00 - 14:30	Electron acceleration in reconnection	Masahiro Hoshino
14:30 – 15:00	Monte Carlo simulations	Don Ellison
15:00 - 15:30	PIC simulations in non-relativistic shocks	Åke Norlund

15:30-16:00 Coffee break

16:00 - 16:30	Hybrid simulation of shock acceleration	Joe Giacalone
16:30 - 18:00	General outline of ISSI book, organisation, followed by splinter groups for book chapters ISSI facilities, rooms available	André Balogh

FRIDAY 20.05.2011

	Chairman	Tony Bell
09:00 - 09:30	On the role of linear and nonlinear resonant interactions in cosmic particle accelerators	Toshio Terasawa
09:30 – 10:00	Overview	Manfred Scholer
10:00 - 10:30	Non-thermal emission from cosmic particle accelerators	Andrei Bykov

10:30-11:00	<i>Coffee break</i>
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11:00 - 11:30	Overview	Robert Lin
11:30 - 12:00	Overview	John Raymond
12:00 – 13:00	Reports from splinter groups, authors Book plans, actions, schedule	Led by Convenors
13:00	<i>Close of Workshop</i>	