

Second Circular

ISSI Workshop **Coronal Mass Ejections** Bern, Switzerland, Tue 16 – Sat 20 March 2004

Convenors

[Host Kunow](#), University of Kiel (chair)
[Nancy Crooker](#), Boston University
[Jon Linker](#), SAIC, San Diego
[Rainer Schwenn](#), MPAe, Lindau

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1. General information

The International Space Science Institute (ISSI) is hosting a workshop on “Coronal Mass Ejections”. The attendance at this workshop is by invitation only. All participants of the first and/or the second Elmau workshop in 2000 and 2003, respectively, have been approached earlier with a letter of invitation and a First Circular, a large number of whom have given a positive reply.

The aim of this Second Circular is to provide the participants with some more information on the workshop programme, organisation and logistics, and to enquire about hotel reservation information. A Third Circular will be distributed a few weeks before the workshop as a reminder and to give some last minute information.

Please consult the letter of invitation and the ISSI homepage at <http://www.issi.unibe.ch/> for general information about ISSI and the workshop webpage at <http://www.issi.unibe.ch/workshops/CME> for updated information about the workshop.

2. Workshop topic

A series of workshops is in progress during the years 2000 – 2004 to study in detail origin, development, and effects of coronal mass ejections (CMEs). An international team of about 70 experimenters, ground observers, and theoreticians works on interpreting the observations and developing new models for CME initiations, development, and interplanetary propagation. Under investigation are also effects on charged particles and related phenomena like energetic particle acceleration, interaction with ambient solar wind and other CMEs, as well as the internal structure of CMEs and its time variation. Fundamental questions concerning CMEs (e.g. CME initiation) and many detailed observations are still not understood. The workshop shall help to jointly investigate these questions with scientists from all scientific

areas involved. The workshop consists mainly of working group sessions on specific topics with a limited number of introductory talks. The specific aim of the ISSI Workshop in 2004 is to publish the workshop results in a joint publication.

3. Workshop date and place

The one-week workshop will be held from 9 a.m. on Tuesday, 16 March 2004 to 5 p.m. on Saturday, 20 March 2004 at the International Space Science Institute, Hallerstrasse 6, in Bern, Switzerland.

Since this might be the best-attended workshop ever held at ISSI we might need to dislocate the plenary sessions to a nearby University institute.

4. Structure of the workshop

4.1 Introductory talks

Eight introductory talks have been assigned by the convenors to two authors each who have been approached with the invitation.

1. CME observations (structure, dynamics) – Bougeret & Hudson & Burkepile
2. Solar wind and field observations of ICMEs in situ – Zurbuchen & McComas
3. CME associated energetic particles (acceleration, propagation) – Cane & Lario
4. Theory and models of CME initiation, evolution, and effects – Mikic & Lee
5. The pre-CME Sun – Dere & Alexander
6. CME-related phenomena (radio bursts, flares, particles, shock formation) – Simnett & Ciaravella
7. Formation and evolution of ICMEs (e.g. turbulence) – Crooker & Horbury
8. Outer heliosphere and high latitude phenomena – von Steiger & J. Richardson

The duration of these talks is 30 minutes plus some 10 minutes for discussion. All introductory talks should lead to a paper in the workshop publication (see below). Drafts of these introductory papers should be available at the workshop.

4.2 Working group sessions

The better part of the workshop will be devoted to working group sessions. As in the Elmau workshops there will be eight working groups, each of which will be led by two co-chairs who have also been approached with the invitation:

- A. Coronal observations – Raymond, Schwenn
- B. Solar wind and magnetic field measurements – Wimmer, Crooker
- C. Energetic particle observations – Klecker, Kunow
- D. CME theory and models – Forbes, Linker
- E. The pre-CME Sun – Gopalswamy, Mikic (Schwenn)
- F. CME-related coronal phenomena – Mann, Pick (Linker)
- G. Inner heliosphere – Forsyth, Bothmer (Crooker)
- H. Outer heliosphere & high latitudes – Gazis, Balogh (Kunow)

Working groups A–D will meet in parallel, as will WGs E–H. Consequently, each participant is a member of two working groups, as identified on the list of participants below. Each working group will start with a status report at the beginning of the workshop and a concluding report on the last day. The duration of these plenary reports is 15 minutes plus some 5 minutes for discussion. Ultimately each working group will lead to a joint report in the workshop publication.

5. Workshop programme

| | |
|------------|--|
| Tue 16 Mar | 0830–0900 Registration 0900–0930 Welcome, introduction, logistics 0930–1010 CME observations – Bougeret & Hudson 1010–1050 Solar wind and field observations – Zurbuchen & McComas 1050–1120 Coffee 1120–1200 CME associated energetic particles – Cane & Lario 1200–1240 Theory and models – TBC 1240–1400 Lunch 1400–1440 The pre-CME Sun – Dere & Alexander 1440–1520 CME-related phenomena – Simnett & Ciaravella 1520–1550 Tea 1550–1630 Formation and evolution of ICMEs – Crooker & Horbury 1630–1710 Outer heliosphere and high latitudes – von Steiger & J. Richardson 1730–1830 Welcome drink |
| Wed 17 Mar | 0900–1020 Elmau WG reports A, B, C, D (15+5 minutes each) 1020–1050 Coffee 1050–1210 Elmau WG reports E, F, G, H (15+5 minutes each) 1210–1400 Lunch 1400–1530 Working Groups A, B, C, D 1530–1600 Coffee 1600–1730 Working Groups A, B, C, D |
| Thu 18 Mar | 0900–0930 Plenary session 0930–1030 Working Groups A, B, C, D 1030–1100 Coffee 1100–1230 Working Groups A, B, C, D 1230–1400 Lunch 1400– Excursion |
| Fri 19 Mar | 0900–0930 Plenary session 0930–1030 Working Groups E, F, G, H 1030–1100 Coffee 1100–1230 Working Groups E, F, G, H 1230–1400 Lunch 1400–1530 Working Groups E, F, G, H 1530–1600 Tea 1600–1730 Working Groups E, F, G, H 1900– Workshop dinner |

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|------------|-----------|---|
| Sat 20 Mar | 0900–0930 | Plenary session |
| | 0930–1030 | Working Groups A, B, C, D |
| | 1030–1100 | Coffee |
| | 1100–1200 | Working Groups E, F, G, H |
| | 1200–1330 | Lunch |
| | 1330–1450 | WG reports A, B, C, D (15+5 minutes each) |
| | 1450–1520 | Tea |
| | 1520–1640 | WG reports E, F, G, H (15+5 minutes each) |
| | 1640–1710 | Workshop Summary |
| | 1710–1730 | Closing Session |
| | 1730 | Adjourn |

6. Publication

A workshop volume is planned to be published by [Kluwer Academic Publishers](#), Dordrecht, both as a hardcover book in the [Space Sciences Series of ISSI](#) and as an issue of the [Space Science Reviews](#) journal. All papers should be prepared in LaTeX with figures in postscript using the [Kluwer style file](#) (see here for an [example paper](#)).

Introductory papers are limited to about 12 pages and should be submitted in draft form before the workshop. Working group papers are limited to about 30–40 pages and will be due some 2 months after the workshop. All papers will be reviewed.

Note that in the Kluwer format the page size is relatively small, accommodating some 450–500 words per page full of text.

Further details about the publication will be discussed at the workshop.

7. Funding of the workshop

ISSI will fund the participants by providing the daily subsistence cost for the time of the meeting (time of arrival in through departure from Bern). This includes the cost for the hotel and for meals. Further details will be given with the confirmation of your hotel reservation. However, ISSI is not in a position to cover travel costs, taxis, phone calls etc.

There will be no registration fee for this workshop.

ISSI will also cover the publication costs of the printed volume, of which each participant will receive a free copy.

8. Equipment available at ISSI

ISSI is equipped with a pool of different kinds of workstations such as Windows PCs, Mac PowerPCs, and Sun SparcStations, as well as with Postscript printers for both b/w and colour. All machines have Ethernet connections and run telnet, ftp, Netscape etc., so connecting to your home machine, accessing email, printing, etc. while at ISSI will be no problem.

Participants who bring their own notebook computers will be able to connect to the Ethernet through the standard RJ45 plug. Cables are available at ISSI and addresses will be dealt out by our DHCP server. We also plan to provide wireless access; details will be given with the third circular. Please contact our computer engineer and system administrator, Saliba Saliba (saliba@issi.unibe.ch), with any computer-related questions.

The seminar room is equipped with a beamer for both electronic presentations and video, two overhead projectors, slide projector, and whiteboard. The working group rooms are equipped with a beamer, an overhead projector and a whiteboard.

A fax machine and a photocopier are available in house, of course.

9. Social programme

An informal welcome drink will be offered at the end of the first day at ISSI, on Tuesday, 16 March 2004, at 5:30 pm.

A free afternoon is foreseen on Thursday, 18 March, on which we will take an excursion to some nice place in the surroundings of Bern, to be announced at the workshop.

A workshop dinner will be offered to all participants in the evening of Friday, 19 March, at 7 pm in a restaurant located in the old part of the city.

10. Travelling to Bern

Bern can be reached easily from two international airports: [Zurich \(ZRH\)](#) and [Geneva \(GVA\)](#). Direct intercity trains to Bern depart (nearly) every half hour from inside the airport buildings; see www.rail.ch for detailed departure times. The travel time is ~1.5 hours from Zurich airport and ~2 hours from Geneva airport. The return fare from Zurich is SFr 80.- or 133.- for second or first class, respectively, and slightly more from Geneva.

There is also a local airport (Bern, BRN), located a 20 minute shuttle ride from the city centre, with connections to several European cities (Amsterdam, London, Munich, etc.).

Bern is connected to many European cities by fast intercity trains (e.g. TGV Paris-Bern in 4.5 hours, or Frankfurt-Bern 5 hours). Timetable information of trains within and around Switzerland can be found at www.rail.ch.

Please see <http://www.issi.unibe.ch/guide.html> for a few more travel tips such as links to city maps of Bern, weather forecasts, currency calculators, etc...

11. Hotel reservations

All participants at the workshop are requested to contact the workshop secretary, Brigitte Fasler (Tel. +41-31-631-4896, Fax: +41-31-631-4897, email: fasler@issi.unibe.ch), and indicate your arrival and departure dates and times, as well as any special requests you may have (e.g. double room). Deadline for receiving this information is **15 February 2004**. A confirmation will be returned within a few days. Block bookings have been made in nearby hotels; please see http://www.issi.unibe.ch/hotel_info.html for a map indicating the location of the hotels and of ISSI.

12. List of participants (as of 7-Jan-04)

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