Second Announcement

University of Barcelona Conference on

# RADIO EMISSION FROM THE STARS AND THE SUN

3–7 July 1995
Barcelona, Spain

This second announcement contains details of the scientific program, registration and accommodation for the meeting. We request that you fill in the appropriate forms at the end of this bulletin and return them by fax or e-mail before the deadlines to the addresses indicated below. This announcement is also being distributed by ordinary mail.

## SCIENTIFIC PROGRAM

It has been 10 years since the last meeting devoted to stellar radio emission (Radio Stars: Boulder, Colorado, 1984). Since that time there have been major observational advances in this field. The number of stars and classes of stars that are known to be sources of radio emission have increased dramatically. We are now able to image radio emission from stellar sources at resolution and sensitivity that was impossible 10 years ago. Moreover, there have been new and exciting results in both continuum and spectral line, arising from new telescopes operating at millimeter and submillimeter wavelengths. These data have revealed new phenomena associated with stars and have yielded new observational data on previously known phenomena. It is time to synthesize this rich and powerful set of new radio observations; to bring together workers in this field and to help turn this data into new theories and insights into the processes giving rise to stellar radio emission.

At the same time that major advances have been made in observations of radio stars, the study of solar radio emission has been making tremendous strides, particularly in the area of active phenomena. Observational highlights include i) results from the new Japanese radioheliograph; ii) joint microwave soft X-ray, and hard X-ray imaging of solar flares by the VLA, the Japanese radioheliograph, and YOHKOH; iii) high-time resolution imaging of dynamical phenomena; iv) joint continuum imaging and spectroscopy of decimetric phenomena; v) broadband microwave imaging spectroscopy; vi) mapping at millimeter and submillimeter wavelengths.

Solar and stellar radio astronomers have traditionally worked as two separate communities. Given the significant advances in each area, we have an excellent opportunity to foster cross-fertilization between the two disciplines. One of the goals of this meeting is to bring these two communities together to explore those areas of astrophysics in common and to study the solar-stellar connection.

The conference will consist of invited review talks, which will give a broad and thorough overview of the topics of the meeting, together with shorter, more specific, invited talks. Scientific sessions will take place from 9am to 1:00pm and from 2:30pm to 6:00pm each day of the conference except Tuesday, when sessions will end at 4:00pm. Contributions from participants are welcome, mainly in the form of poster. Only a few 10-15 minute, oral contributions will be scheduled. Plenty of time will be available for poster viewing and discussion.

# PROGRAM OF INVITED SPEAKERS

MONDAY, 3 JULY

**Ionized Envelopes**

G. Anglada (Univ. of Barcelona, Spain) - Invited Review
*"Radio Jets from Young Stellar Objects"*
P. Williams (ROE, UK) - Invited Review
*"Radio Emission by Wolf-Rayet and OB Stars"*
C. Skinner (STSCI, USA) - Invited Talk
*"Radio Variability and the Physical Structure of the P Cygni Nebula"*

**Neutral Envelopes**

J. Knapp (Univ. of Princeton, USA) - Invited Review
*"Molecules, Dust and the Structure of Circumstellar Envelopes"*
K. Menten (CfA, USA) - Invited Review
*"Circumstellar Masers at Radio and (Sub)millimeter Wavelengths"*
M. Reid (CfA, USA) - Invited Review
*"Optical and Radio Photospheres of Red Giant Stars"*

TUESDAY, 4 JULY

**Supernovae**

R. Chevalier (Univ. of Virginia, USA) - Invited Review
*"The Circumstellar Interaction Model for Radio Supernovae"*
J. Marcaide (Univ. of Valencia, Spain) - Invited Review
*"Radio Emission from Supernovae: A Review with Emphasis on High Angular Resolution Observations"*
K. Weiler (NRL, USA) - Invited Talk
*"What We Can Learn From Radio Lightcurves of Supernovae"*

**Novae and Cataclysmic Variables**

R. Hjellming (NRAO, USA) - Invited Review
*"A Unified Model Approach to Radio (and Optical) Images and Spectra for Classical Novae"*
M. Bode (Univ. of Liverpool, UK) - Invited Review
*"The Origin and Evolution of Radio Emission in Classical and Recurrent Novae"*

WEDNESDAY, 5 JULY

**X-Ray Binaries**

F. Mirabel (CEA, Saclay, France) - Invited Review
*"Relativistic Ejections from Hard X-ray Binaries"*
L. Ball (U. Sydney, Australia) - Invited Review
*"Theory and Modelling of the Radio Emission from X-ray Transients"*

**Radio Activity in Stars**

B. van den Oord (Utrecht Obs., Nederlands) - Invited Review
*"Non-thermal Emission Mechanisms in Stellar Coronae"*
P. André (CEA, Saclay, France) - Invited Review
*"Radio-Emitting Magnetic Structures and Circumstellar Disks Around Young Stellar Objects"*

B. Becker (UC Davis, USA) - Invited Talk
*"The First Stars from the FIRST Survey"*
M. Guedel (JILA, USA) - Invited Talk
*"Coronal Microwaves from Cool Stars with Intense X-ray Emission"*

THURSDAY, 6 JULY

**The Active Sun**

A. Benz (ETH, Zurich, Switzerland) - Invited Review
*"Coherent Radio Emission of Solar Flares in the Decimeter Range (0.3 - 3 GHz)"*
L. Vlahos (Univ. of Thessaloniki, Greece) - Invited Review
*"Global Models for the Active Sun and the Statistics of Flares"*

**The Quiet Sun**

D. Gary (CalTech, USA) - Invited Review
*"Microwave Imaging Spectroscopy of the Non-Flaring Sun"*

**Results from New Instruments**

S. Enome (NRO, Japan) - Invited Review
*"Non-thermal and Thermal Loops in Solar Flares: Their Possible Roles, Interactions and Evolution"*
D. Gary (CalTech, USA) - Invited Review
*"Recent Results from the OVRO Solar Array"*
G. Gelfreikh (RATAN 600, Russia) - Invited Review
*"Spectral Polarization Study of the Solar Radio Sources using RATAN-600"*

FRIDAY, 7 JULY

**The Stellar/Solar Connection**

J. Linsky (Univ. of Colorado, USA) - Invited Review
*"Steady Radio Emission from Stars: Observations and Emission Processes"*
D. Melrose (Univ. of Sydney, Australia) - Invited Review
*"Radio Flares from Stars: Emission Mechanisms and Possible Solar Analogs"*

## CALL FOR ABSTRACTS

Abstracts should be submitted, preferably by e-mail, to `radio@mizar.am.ub.es` in TEX, LATEX or plain text before June 1st. We encourage you to use the abstract style LATEX macro included in the e-mail version of this announcement. This LATEX template is also availabe by anonymous ftp to `fareb1.am.ub.es`, in the `/pub` directory. Submission of a quality hardcopy by ordinary mail to the General Secretariat is also accepted provided that it follows the abstract style model included in the the printed version of this announcement. **No fax submission of abstracts, please**. Authors will be notified about acceptance and scheduling of their contribution.

## FINANCIAL ASSISTANCE

A limited number of grants will be available for graduate students and young scientists who need financial assistance in order to attend this conference. An application form is included with this announcement.

## SCIENTIFIC ORGANIZING COMMITTEE

| | |
|---|---|
| T. Bastian (USA) | L. F. Rodríguez (Mexico) |
| S. Enome (Japan) | E. Seaquist (Canada) |
| R. Hjellming (USA) | R. Spencer (UK) |
| J. F. Lestrade (France) | R. Strom (The Netherlands) |
| M. Massi (Italy) | A. R. Taylor (Canada, Chair) |
| J. M. Paredes (Spain) | R. Vermuelen (USA) |
| B. Phillips (USA) | |

## LOCAL ORGANIZING COMMITTEE

G. Anglada (Universitat de Barcelona)
R. Estalella (Universitat de Barcelona)
J. Martí (Universitat de Barcelona)
J. M. Paredes (Universitat de Barcelona, Chair)
M. Peracaula (Universitat de Barcelona)
A. Rius (CSIC-INTA)

## EDITORS

A. R. Taylor
J. M. Paredes

## CONFERENCE PROCEEDINGS

All invited and contributed papers, including oral and poster, will be refereed and published in the conference proceedings as part of the **Astronomical Society of the Pacific Conference Series**.

## SPONSORSHIP

Comissionat per a Universitats i Recerca. CIRIT
Community of European Solar Radio Astronomers (CESRA)
Fundació Catalana per a la Recerca (FCR)
International Union of Radio Science (URSI)
Sociedad Española de Astronomía (SEA)
Universitat de Barcelona (UB)

## CONTACT ADDRESS

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Fax: +34 3 402 1133

**General Secretariat:**
ULTRAMAR CONGRESS
Diputació, 238, 3$^o$
E-08007 Barcelona
SPAIN

# PRACTICAL INFORMATION

## Dates

July 3-7, 1995

## Registration

A registration fee for the meeting is 23000 PTA. (Currently 130 PTA = 1 US$). This fee includes the cost of a copy of the conference proceedings and the conference dinner. The fee (together with the accommodation deposit, see below) should be paid by June 1st. After this date the registration fee will be 26000 PTA. A registration and accomodation booking form is included with this announcement.

## Location

The Conference is to be held on the campus of the University of Barcelona, in the Faculty of Physics building, Av. Diagonal, 647, E-08028 Barcelona (Spain).

## Accommodation

Accommodation will be made at nearby hotels and at student rooms. Students rooms are available with shared or private bathrooms. Accommodation for accompanying guests will be available. See the attached list of hotel locations and prices. All the hotels are within walking distance of the conference location.

## Calendar

Deadline for financial aid request: April 15th
Deadline for early registration and hotel deposit: June 1st
Deadline for submission of abstracts: June 1st
At the beginning of June, there will be a third and final announcement.

## Social Events

Sunday 2, 5:00-8:00 pm: begining of registration at the conference location.

Tuesday 4, 4:00pm: organized bus tour of the city (optional). The tour ends at an official reception at City Hall at 7:00 pm. Participants not going to the tour are also welcome to the reception and they are requested to make their own way to City Hall.

Thursday 6, evening: conference dinner (included with the registration fee).

For both the city tour and conference dinner, tickets will be available at the conference for accompanying persons. Other visits and activities for accompanying persons will be available through the General Secretariat travel agency, located in the same Conference center.

## About the city

Barcelona, the site of the 1992 summer Olympic Games, is a Mediterranean city, the capital of the Catalonia country in the northeast of Spain. The city has a long history rooted in the Roman culture, that spans over 2000 years. The Gothic Quarter is particularly nice and lively. The city has many fine examples of the architectural accomplishments of Gaudí, and has many historic buildings and sites. Barcelona is also known for housing most of the best paintings of Picasso and Miró. The weather conditions in Barcelona in July are usually hot and sunny. The average temperature is 24°C and humidity is normally high.

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# Registration and Accommodation Booking Form

Surname(s): ................................ First Name(s): ................................

Institute: ......................................................................................

Address: ......................................................................................

E-mail: ................................... Phone/Fax: .......................................

**Information on Hotel Accomodation** (Prices are per day and include buffet breakfast. All hotels are within walking distance from the conference hall. All hotel rooms are air conditioned.)

| | *Twin Room* | *Single Use Room* | *VAT* |
|---|---|---|---|
| ◯ Hotel Arenas **** | 9600 PTA | 8000 PTA | + 7% |
| ◯ Hotel Victoria **** | 9600 PTA | 8000 PTA | + 7% |
| ◯ Hotel Pedralbes *** | 9000 PTA | 7800 PTA | + 7% |
| ◯ Hotel Bonanova Park ** | 7000 PTA | 6000 PTA | + 7% |
| ◯ Students Room (with bath) | 5100 PTA | 3300 PTA | + 7% |
| ◯ Students Room (without bath) | 4400 PTA | 2650 PTA | + 7% |

Please reserve ........ room(s) ◯ Twin(s) ◯ Single Use(s)

Date of arrival .......................... Date of departure ..........................

Remarks ......................................................................................

I enclose payment of:

Registration fee (23000 PTA before June 1st, 26000 PTA afterwards) ............. PTA

Hotel deposit (10000 PTA)

(For reservation of a Students Room, full prepayment is required) ............. PTA

Total: ............. PTA

**Payment**

◯ By draft payable to ULTRAMAR CONGRESS by a Spanish Bank.

◯ By bank transfer to BANCO CENTRAL HISPANO (c/o ULTRAMAR CONGRESS), Branch N. 20, P. de Gracia 3, E-08007 Barcelona, Spain. Account Number: 0049-1806-94-2910031032. Please attach copy of the transfer to this form. Bank transfer fees must be paid by you.

◯ By credit card (VISA, MasterCard or EuroCard) N. ................................
Expiration date .................

◯ I require a receipt immediately. (If not, a receipt will be issued to you on Barcelona.)

Please return this form **before June 1st 1995** by e-mail to `radio@mizar.am.ub.es` or by FAX to the General Secretariat: ULTRAMAR CONGRESS, FAX: + 34 3 482 7158.

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# Model of Abstract for Contributed Paper

Preferred type of presentation: ◯ Oral ◯ Poster

## This is the title of the abstract

**A. Author1[1,2], B. Author2[2] and C. Author3[1]**

[1] Departament d'Astronomia i Meteorologia, Universitat de Barcelona
[2] Department of Astronomy, University of Calgary

This is the text of the abstract describing shortly the results that you intend to present in this Conference. This is the text of the abstract describing shortly the results that you intend to present in this Conference. This is the text of the abstract describing shortly the results that you intend to present in this Conference. This is the text of the abstract describing shortly the results that you intend to present in this Conference. This is the text of the abstract describing shortly the results that you intend to present in this Conference. This is the text of the abstract describing shortly the results that you intend to present in this Conference. This is the text of the abstract describing shortly the results that you intend to present in this Conference.

Please send your abstract **before June 1st, 1995** preferably by e-mail (TEX, LATEX or plain text) to `radio@mizar.am.ub.es`. You may use the LATEX macro included in this announcement. Submission of a quality hardcopy to the General Secretariat by ordinary mail is also accepted.

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# Financial Aid for Students and Young Scientists

Name: ...............................................................................

Affiliation: ...............................................................................

Name of thesis supervisor/advisor (if applicable): ..............................................

Title of thesis (if applicable): ...............................................................

Age: ...............................................................................

Type(s) of support requested: ◯ Travel ◯ Accommodation ◯ Registration fee

Brief resume of research to date with a list of relevant publications (if any):

Participants who wish to be considered for one of the limited number of partial grants should return this form **before April 15** by e-mail to `radio@mizar.am.ub.es` or by fax to Dr. Josep M. Paredes, + 34 3 402 1133.