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GR10 10TH INTERNATIONAL CONFERENCE ON GENERAL RELATIVITY AND GRAVITATION

Padova, July 4 – 9, 1983



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10TH INTERNATIONAL CONFERENCE ON GENERAL RELATIVITY AND GRAVITATION

Under the Auspices of the International Society of GRG

JULY 4-9, 1983

FONDAZIONE CINI - ISOLA DI SAN GIORGIO - VENICE (ITALY)

SECOND CIRCULAR

This circular is only sent to those who have answered the first circular issued in December 1981. Additional copies may be obtained from the Conference Secretariat.

Response to the First Circular

More than 800 preliminary registrations from 38 countries have arrived and the number is still increasing.

The Scientific Structure of the Conference

The scientific structure of the Conference is under the responsibility of the Scientific Committee, whose members are

E. Amaldi, Italy
E. Bender, USA
P. Bergmann, USA
B. Bertotti, (Chairman), Italy
C. Clarke, England
Y. Choquet-Bruhat, France
F. De Felice, Italy
M. Demianski, USA
J. Ehlers, BRD
L.D. Faddeev, USSR
S. Ferrara, Switzerland
A.E. Fischer, USA
M. Francaviglia, Italy
Y. Fujii, Japan
J.B. Hartle, USA
A. Held, Switzerland
M.A.H. Mac Callum, England
I.D. Novikov, USSR
M.J. Rees, England
E. Schmutzer, DDR
J. Tiomno, Brasil
C.V. Vishveshwara, India

The Conference will consist of invited lectures which will be given in general sessions and of workshops, all about the following main topics

A. Classical Relativity
B. Relativistic Astrophysics
C. Experimental Gravitation
D. Quantum Gravity

Tentative Program of the Conference

Sunday 3 July	
15.00 – 20.00	Registration
Monday 4 July	
9.30 – 12.30	Inaugural meeting
14.30 – 18.00	Workshops
possibility of prolonged sessions	
Tuesday 5 July	
9.00 – 12.30	Invited lectures
14.30 – 18.00	Workshops
21.00 – 23.00	Social activity
Wednesday 6 July	
9.00 – 12.30	Workshops
14.30 – 18.00	Workshops
possibility of prolonged sessions	
Thursday 7 July	
9.00 – 12.30	Invited lectures
14.30 – 17.00	Workshops
17.30 – 19.00	Assembly of GRG Society
20.30 – 23.00	Official Banquet
Friday 8 July	
9.00 – 12.30	Invited lectures
14.30 – 16.00	Workshops
16.30 – 18.00	Workshop Round Table:
Highlights of the Conference	

Three workshops at most will be held in parallel sessions and their titles are the following

A1. **Equations of motion, gravitational radiation and asymptotic structure of space-time**

A2. **Exact solutions and singularities** (including complex methods)

A3. **Initial value problem** (including Hamiltonian formulation, superspace theory and positive mass theorems)

A4. **Numerical relativity** (including algebraic methods, numerical techniques and results)

A5. **Classical and quantum alternative approaches to gravitational theories** (including twistors, torsion theories, etc.)

B1. **Physics and astrophysics of black holes** (dynamics of collapse; emission of gravitational waves; accretion problems; jets; astrophysical evidence for black holes)

B2. **The early universe**

B3. **Cosmological parameters and cosmological models** (including the cosmic background)

C1. **High frequency gravitational waves: attempts to laboratory detection** (putting together bar and interferometric detection will allow a comparison between the two methods)

C2. **Space experiments** (this will include both solar system tests and gravitational wave experiments in space)

C3. **Laboratory experiments** (other than gravitational wave detection)

D1. **Quantum gravity and quantum field theory in a curved space**

D2. **Supergravity**

The titles and boundaries of A1, A2, A3 and A4 are subject to later changes, having taken into account the proposed contributions. Names and addresses of the Chairmen of the workshops are listed below.

Contributed papers

The extended abstracts of all contributions will be photoprinted and distributed in book form to participants as the first part of the Proceedings. If a contribution falls within the scope of one of the mentioned workshops, the author(s) should send a short summary by November 30, 1982, both to the Chairman of the workshop and to the Scientific Secretary of the Conference, Alessandro Pascolini, to his address at the GR10 Secretariat.

In order to be included in the first part of the Proceedings, the extended summaries of the contributed papers (no more than three pages, 400 words each), should be submitted by March 31, 1983. The original manuscript, with indication of the relevant workshop, should be sent to the Scientific Secretary, and a copy to the Chairman of the workshop. Contributed papers not falling within the scope of any of the workshops should be sent to the Scientific Secretary only, with indication of the field of research they pertain to.

Manuscripts should be ready for direct photographic reproduction. They should be typed on one side of the sheet, using an electric typing machine, with carbon or plastic black ribbon. The format of the paper should be A4 normal size; drawings and figures should be inserted at appropriate place in the body of the manuscript. Photographs should be avoided whenever possible; where they are necessary, negatives should be sent with one colour screen only. Sheets should not be folded nor stapled; to avoid damage, please pack manuscripts in strong cardboard. The title of the paper should be followed by the name(s) of the author(s) and the institution. Notation should conform to the rules of *GRG Journal*.

Please note that no manuscript arrived later than April 15, 1983 will be included in the first part of the Proceedings.

Registration

The registration fee will be US $ 150 for non members and US $ 130 for GRG members. It will include the first part of the Proceedings (contributed papers), Conference supplies, social activities (including a banquet), and a shuttle service from Venice to the Conference site and viceversa.

The banquet will be charged US $ 50 to each accompanying person.

Meals will be available at the Fondazione G. Cini (Isola di San Giorgio) at the approximate cost of US $ 15 each.

Advance registration and pre-payment of registration fees are recommended. This can be done either by payment order to account N. 49556/OW at the Cassa di Risparmio di Venezia, Venice (Italy) or by sending a cheque (in US $ or other currency having legal force in the E.E.C.) payable to the GR10 Secretariat. Personal cheques will be accepted, but no credit card.

Accommodation in Venice

The following rates, in US $, include breakfast and taxes; they are to-day approximate prices, subject to current inflationary increase.

Between brackets is the number of rooms reserved for each category

		single rooms	*double rooms*
A 1st category	US $	61 (45)	96 (141)
B 2nd category	US $	36 (35)	64 (178)
C 3rd category	US $	21 (8)	39 (75)
D Hotel des Bains at Venezia/Lido (1st category, with private beach)	US $	60 (30)	97 (40)

E Cheap accommodation — US $ 15 per person
Can be provided for a limited number of participants.
No individual bath-rooms or showers are in the rooms, which usually consist of two twin-size beds.

Hotels in groups A, B and C are within walking distance of Piazza San Marco, from which shuttle boats to Isola di San Giorgio will start.

Dates to remember

October 31, 1982	Deadline for hotel accommodation to be requested
November 30, 1982	Deadline for contribution abstracts to be sent
December 31, 1982	Deadline for hotel reservation to be confirmed to participants
January 31, 1983	Deadline for applications for scholarships and financial aid
March 31, 1983	Deadline for contribution abstracts to be sent for inclusion in the first part of the Proceedings
March 31, 1983	Deadline for deposit to be sent in order to book accommodation
April 15, 1983	Deadline for contribution abstracts to arrive at the GR10 Secretariat.

July is one of the months when Venice is overrun with holiday-makers. Therefore, it is strongly advised that requests for hotel accommodation be made as early as possible to assure availability, and preferably no later than October 30, 1982. Requests received after that date will be on a space available basis.

We shall confirm your reservation by December 31, 1982 and request a deposit to be sent by March 31, 1983, in order to secure a room on a definite basis. On that occasion you shall also receive detailed information on the site of your hotel and the best way to reach it.

Please indicate preferred choice of room-mate, if known, in your accommodation form.

Visas

Participants from Countries for which an entry visa is required may ask for assistance.

Scholarships and financial aid

The GRG Society will have a certain amount of funds available for financial support (living expenses and registration fees, but no travel expenses) for relativists, including students. Additional funds for the same kind of support to students have also been obtained. All applications should include a short curriculum and be sent to the Conference Secretariat before January 31, 1983.

Students applying should, if possible, obtain a recommendation from a member (past or present) of the International Committee of the GRG Society, which should be sent separately to the Conference Secretariat.

Funds for supporting senior scientists from developing countries will also be available. Applicants are requested to send a short curriculum.

WORKSHOP CHAIRMEN

A1. J. Ehlers	Max-Planck-Institut für Physik und Astrophysik, Karl-Schwarzschild-Strasse 1, D-8046 Garching bei München, Federal Republic of Germany
A2. M. MacCallum	Department of Applied Mathematics, Queen Mary College, University of London, London E1 4NS, United Kingdom
A3. K. Kuchar	Department of Physics, The University of Utah, 201 North Physics Building, Salt Lake City, U84112, USA
A4. L. Smarr	Department of Astronomy, Illinois University, 1011 W Springfield, Urbana, Illinois 61801, USA
A5. E. T. Newman	Department of Physics, Faculty of Arts and Science, University of Pittsburg, Pittsburg, PA15260, USA
B1. R. Wald	E. Fermi Institute, Chicago University, 5640 South Ellis Ave., Chicago, Ill. 60637, USA
B3. I. D. Novikov	Space Research Institute, Profsoyuznaja 84/32 Moscow 117810, USSR
C1. E. Amaldi	Istituto di Fisica, Università di Roma, Piazzale Aldo Moro 2, I00185 Roma, Italy
C3. P. Bender	Joint Institute for Laboratory Astrophysics, University of Colorado, Boulder, Colorado 80309, USA
D1. C. J. Isham	The Blackett Laboratory, Imperial College of Science, Prince Consort Road, London SW7 2B7, United Kingdom
D2. P. van Nieuwenhuizen	Institute of Theoretical Physics, New York State University, Stony Brook, N.Y. 11794, USA

The scientists contacted for the chairmanship of workshops B2 and C2 have not yet confirmed. The Scientific Secretary will forward a copy both of the short and of the extended abstracts to the workshop chairmen as soon as they are confirmed.

Conference Address
GR10
Istituto di Fisica "G. Galilei"
via Marzolo, 8
I-35100 Padova (Italy)
Telex 430308 IFGGPD I
Tel. (49) 45184/844239/844272

Conference Chairman
Prof. Bruno Bertotti

Conference Deputy Chairman
Prof. Fernando De Felice

Conference Scientific Secretary
Prof. Alessandro Pascolini

Conference Secretary
Dr. Laura Salvadori

JULY 1982

ACCOMMODATION FORM

Two sheets (*) to be returned no later than **October 31, 1982**

to GR10 – Istituto di Fisica "G. Galilei"
Università degli Studi
via Marzolo, 8 - I 35100 Padova - Italy

Participant _____

Accompanying person(s) 1 _____

2 _____

3 _____

Please indicate three choices of accommodation from groups A, B, C, D, E, listed in the 'Accommodation in Venice' section. If your first choice is filled by the time this form is received, the second or third choice will be assigned

1st Choice: ☐ single room(s) ☐ double room(s) in category ☐

2nd Choice: ☐ single room(s) ☐ double room(s) in category ☐

3rd Choice: ☐ single room(s) ☐ double room(s) in category ☐

date of arrival _____ date of departure _____

Special requirements and/or requests

_____

_____

I $\frac{\text{am}}{\text{am not}}$ prepared to share a room with another participant (please indicate preferred room-mate if known)

_____

I shall not require accommodation ☐

(*) The yellow sheet is for your own record

N.B. This form may be reproduced if needed for additional participants.

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1st Choice: ☐ single room(s) ☐ double room(s) in category ☐

2nd Choice: ☐ single room(s) ☐ double room(s) in category ☐

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date of arrival _____ date of departure _____

Special requirements and/or requests

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2nd Choice: ☐ single room(s) ☐ double room(s) in category ☐

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date of arrival _____ date of departure _____

Special requirements and/or requests

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N.B. This form may be reproduced if needed for additional participants.

GR10

10TH INTERNATIONAL CONFERENCE ON GENERAL RELATIVITY AND GRAVITATION

Under the Auspices of the International Society on GRG

Padova, July 4-9, 1983

CIRCULAR 2 bis

The Tenth International Conference on General Relativity and Gravitation will be held from July 4 to 9, 1983 **in Padova instead of Venice** as previously announced. The Organizing Committee has taken this decision in agreement with some general recommendations expressed by the President of GRG and by some distinguished scientists after the Second Circular was issued.

Circular 2 bis replaces the Second Circular, issued in July. Please take note of the variations, favourable to the participants, which have become possible by changing the site of the Conference.

The Scientific Structure of the Conference

The scientific structure of the Conference is under the responsibility of the Scientific Committee, whose members are

E. Amaldi, Italy
P. Bender, USA
P. Bergmann, USA
B. Bertotti, (Chairman) Italy
C. Clarke, England
Y. Choquet-Bruhat, France
F. De Felice, Italy
M. Demianski, USA
J. Ehlers, FRG
L.D. Faddeev, USSR
S. Ferrara, Switzerland
A.E. Fischer, USA
M. Francaviglia, Italy
Y. Fujii, Japan
J.B. Hartle, USA
A. Held, Switzerland
M. MacCallum, England
I.D. Novikov, USSR
M.J. Rees, England
E. Schmutzer, GDR
J. Tiomno, Brasil
C.V. Vishveshwara, India

The Conference will consist of invited lectures which will be given in general sessions and of workshops, all about the following main topics

A. Classical Relativity
B. Relativistic Astrophysics
C. Experimental Gravitation
D. Quantum Gravity

Invited Speakers

Some eighteen invited lectures are planned. The following scientists have already accepted to give a talk

A. Ashtekar (USA), S. Chandrasekhar (USA),
T. Damour (France), R. Drever (England),
S. Hawking (England), H. Sato (Japan),
T. Regge (Italy), B. de Witt (USA).

Tentative Program of the Conference

Sunday 3 July	
15.00 – 20.00	Registration
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14.30 – 18.00	Workshops
possibility of prolonged sessions	
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Friday 8 July	
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14.30 – 16.00	Workshops
16.30 – 18.00	Workshop round table:
"Highlights of the Conference"	

Three workshops at most will be held in parallel sessions and their titles are

A1. **Equations of motion, gravitational radiation and asymptotic structure of space-time**

A2. **Exact solutions and singularities** (including complex methods)

A3. **Initial value problem** (including Hamiltonian formulation, superspace theory and positive mass theorems)

A4. **Numerical relativity** (including algebraic methods, numerical techniques and results)

A5. **Classical and quantum alternative approaches to gravitational theories** (including twistors, torsion theories, etc.)

B1. **Physics and astrophysics of black holes** (including cosmic censorship; black hole thermodynamics; astrophysical aspects of collapse; accretion problems; astrophysical evidence for black holes).

B2. **The early universe**

B3. **Cosmological parameters and cosmological models** (including the cosmic background)

C1. **High frequency gravitational waves: attempts to laboratory detection** (putting together bar and interferometric detection will allow a comparison between the two methods)

C2. **Space experiments** (this will include both solar system tests and gravitational wave experiments in space)

C3. **Laboratory experiments** (other than gravitational wave detection)

D1. **Quantum gravity and quantum field theory in a curved space**

D2. **Supergravity**

The titles and boundaries of A1, A2, A3 and A4 are subject to later changes, after having taken into account the proposed contributions. Names and addresses of the Chairmen of the workshops are listed below.

Contributed papers

All contributions will be photoprinted and distributed in book form to participants as the first part of the Proceedings. If a contribution falls within the scope of one of the mentioned workshops, the author(s) should send a short summary by January 15, 1983, both to the Chairman of the workshop and to the Scientific Secretary of the Conference, Alessandro Pascolini, to his address at the GR10 Secretariat.

In order to be included in the first part of the Proceedings, contributed papers (no more than three pages) should be submitted by April 15, 1983. The original manuscript, with indication of the relevant workshop, should be sent to the Scientific Secretary, and a copy to the Chairman of the workshop. Contributed papers not falling within the scope of any of the workshops should be sent to the Scientific Secretary only, with indication of the field of research they pertain to.

Manuscripts should be ready for direct photographic reproduction. They should be typed on one side of an "A4" sheet, with 1 ½ spacing and a margin of 2,5 cm all around. An electric typewriter should be used, with carbon or black plastic ribbon. Drawings and figures should be inserted at appropriate places in the body of the manuscript. Photographs should be avoided whenever possible; where they are necessary, negatives should be sent with one colour screen only. Sheets should not be folded nor stapled; to avoid damage, please pack manuscripts in strong cardboard. The title of the paper should be followed by the name(s) of the author(s) and the institution. Notation should conform to the rules of *GRG Journal*.

Please note that no manuscript arriving later than April 15, 1983 will be included in the first part of the Proceedings.

Accommodation in Padova

Padova is about 30 km from Venice, on both the Rome-Venice and Milan-Venice railway line. It is easily reached from the Venice Airport (Marco Polo). There is no Air Terminal in Padova, but we will provide transport in coincidence with arrivals and departures to and from the Airport on July 3,4 and July 9.

The following are approximate costs per night for accommodation in Padova in 1983. They are expressed in Italian Lire and include breakfast and taxes

		single rooms	*double rooms*
A 1st category	L.	58.000	83.000
B 2nd category	L.	42.000	63.000
C 3rd category	L.	26.000	45.000
D Terme Commodore Hotel at Montegrotto Terme			
bed and breakfast	L.	37.000	62.000
half-board	L.	48.000	84.000

A first category hotel, with tennis courts and thermal swimming pools, situated within the greatest thermal centre in Europe, at about 10 km from Padova. The above quoted prices include transport to and from the site of the Conference.

E Cheap accommodation can be provided for a limited number of participants at an approximate cost of L. 15.000 each

No individual bathrooms or showers are in the rooms, which usually consist of two twin-size beds.

As there have been noticeable changes in prices, would you please fill in an accommodation form once more, and send it to us within January 15, 1983. Requests received after that date will be on a space available basis. We shall confirm your reservation by March 15, 1983, and request a deposit to be sent by April 30, 1983, in order to secure a room on a definite basis. On that occasion you will also be informed of the name of your Hotel and the exact cost. As single rooms are, but in group D, very few, please indicate preferred choice of roommate, if known, in your accommodation form.

Luncheons will be made available to participants at an approximate cost of US $ 5 per person.

Registration

The registration fee will be US $ 100 for non members and US $ 80 for GRG members. It will include the first part of the Proceedings (contributed papers), Conference supplies and transport from Venice Airport to the Hotels and back for participants and accompanying persons.

Advance registration and pre-payment of registration fee are recommended. This can be done

- by payment order either to account N. 49556/OW at the Cassa di Risparmio di Venezia (Venice, Italy), or to account N. 467456K at the Cassa di Risparmio di Padova e Rovigo, Agenzia N. 7 (Padova, Italy);
- by sending a cheque (in US $ or other currency having legal force in the EEC) payable to the GR10 Conference. Personal cheques will be accepted, but no credit cards.

Social Activies

These will include a concert offered by the Organizing Committee, while the participants and accompanying visitors will be charged for the Official banquet. A special social programme for accompanying persons will also be proposed.

Scholarships and financial aid

The GRG Society will have a certain amount of funds available for financial support (living expenses and registration fees, but no travel expenses) for relativists, including students. Additional funds for the same kind of support to students have also been obtained. All applications should include a short curriculum and be sent to the Conference Secretariat before January 31, 1983.

Students applying should, if possible, obtain a recommendation from a member (past or present) of the International Committee of the GRG Society, which should be sent separately to the Conference Secretariat.

Funds for supporting senior scientists from developing countries will also be available. Applicants are requested to send a short curriculum.

Travel Support to US Participants

Dieter Brill and Bei-Lok Hu (University of Maryland, College Park, USA) have applied for a NSF grant to cover travel expenses of US participants. Please contact them for further information.

Visas

Participants from Countries for which an entry visa is required may ask for assistance.

Workshop chairmen

A1. J. Ehlers	Max-Planck-Institut für Physik und Astrophysik, Karl-Schwarzschild-Strasse 1, D-8046 Garching bei München, Federal Republic of Germany
A2. M. MacCallum	Department of Applied Mathematics, Queen Mary College, University of London, London E1 4NS, England
A3. K. Kuchar	Department of Physics, The University of Utah, 201 North Physics Building, Salt Lake City U84112, USA
A4. L. Smarr	Department of Astronomy, Illinois University, 1011 W Springfield, Urbana, Illinois 61801, USA
A5. E. T. Newman	Department of Physics, Faculty of Arts and Science, University of Pittsburg, Pittsburg PA15260, USA
B1. R. Wald	E. Fermi Institute, Chicago University, 5640 South Ellis Ave., Chicago, Ill. 60637, USA
B2. I. B. Zeldovich	Institute for Cosmic Research, Profsoyuznaja 84/32. Moscow 117810, USSR
B3. I. D. Novikov	Space Research Institute, Profsoyuznaja 84/32. Moscow 117810, USSR
C1. E. Amaldi	Istituto di Fisica, Università di Roma, Piazzale Aldo Moro 2, I00185 Roma, Italy
C2. P. Bender	Joint Institute for Laboratory Astrophysics, University of Colorado, Boulder, Colorado 80309, USA
C3. H. Hirakawa	Department of Physics, University of Tokyo, 3-1 Hongo, 7-Chome, Bunkyo-Ku, Tokyo 113, Japan
D1. C. J. Isham	The Blackett Laboratory, Imperial College of Science, Prince Consort Road, London SW7 2B7, England
D2. P. van Nieuwenhuizen	Institute of Theoretical Physics, New York State University, Stony Brook, N.Y. 11794, USA

Dates to remember

January 15, 1983	Deadline for contributed abstracts to be sent
January 15, 1983	Deadline for hotel accommodation to be requested
January 31, 1983	Deadline for applications for scholarship and financial aid
March 15, 1983	Deadline for hotel reservation to be confirmed to participants
April 15, 1983	Deadline for contributed abstracts to arrive at the GR10 Secretariat
April 30, 1983	Deadline for deposit to be sent in order to book accommodation

Conference Address
GR10
Istituto di Fisica "G. Galilei"
via Marzolo, 8
I-35100 Padova (Italy)
Telex 430308 IFGGPD I
Tel. (049) 45184/844239/844272

Conference Chairman
Prof. Bruno Bertotti
Conference Deputy Chairman
Prof. Fernando De Felice
Conference Scientific Secretary
Prof. Alessandro Pascolini
Conference Secretary
Dr. Laura Salvadori

In order to make up for inconvenience due to lack of delivery or changes of address, we ask you to kindly forward this circular to other people who may be interested in it

NOVEMBER 1982