

ICTP – [The Abdus Salam International Centre for Theoretical Physics](#), Trieste, Italy

smr1321/Announcement

UNITED NATIONS EDUCATIONAL SCIENTIFIC AND CULTURAL ORGANIZATION
and
INTERNATIONAL ATOMIC ENERGY AGENCY

THE ABDUS SALAM INTERNATIONAL CENTRE FOR THEORETICAL PHYSICS

Strada Costiera 11
I-34014 Trieste
Italy

Telephone: +39-040-2240111
Telex: 460392 ICTP I
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SCHOOL AND WORKSHOP ON DYNAMICAL SYSTEMS

in honour of M. Herman

Miramare - Trieste, Italy
30 July - 17 August 2001

Co-sponsored by Conselho Nacional de Desenvolvimento Científico
e Tecnológico, Brazil

The Abdus Salam International Centre for Theoretical Physics is organizing a School and Workshop on Dynamical Systems from 30 July to 17 August 2001. It will be directed by Professors J. Palis (Instituto de Matemática Pura e Aplicada, Rio de Janeiro, Brazil), Ya. Sinai (Princeton University, U.S.A., Landau Institute for Theoretical Physics, Moscow, Russia), M. Viana (Instituto de Matemática Pura e Aplicada, Rio de Janeiro, Brazil), and J.-C. Yoccoz (College de France, Paris).

I. PROGRAMME

There will be both intermediate-level courses and advanced talks on recent research.

The main topics to be covered will be:

- Chaotic Dynamics: Density of Finitude of Attractors, Existence of Sinai-Ruelle-Bowen Measures, Stochastics Stability, Homoclinic Bifurcations, Robust Singular Attractors and Lorenz' Attractors.
- Conservative Dynamics: KAM and Mather Theories, Billiards, Lyapunov Exponents and Standard Families.
- One-dimensional Real and Complex Dynamics: Density of Hyperbolicity, Parametrized Families and Total Probability of SRB-measures, Classification.
- Ergodic Theory and Applications of Dynamics to Number Theory.
- Dynamical Systems Methods Applied to Partial Differential Equations.

The courses will be the following:

Homogeneous Dynamics with Applications to Number Theory (D. Kleinbock)
One Dimensional Dynamics, Real versus Complex (M. Lyubich)
Conservative Dynamics (J. Mather)
Chaotic Dynamics and Finitude of Attractors (E. Pujals)

Main lecturers and invited speakers will include:

M. Benedicks (KTH, Stockholm)
A.A. Bolibrukh (Steklov Inst., Moscow)
C. Bonatti (Universite' de Bourgogne)
L. Bunimovich (Georgia Institute of Technology)
A. Chenciner (Paris 7)
W. de Melo (IMPA, Rio de Janeiro)
A. Douady (Universite' Paris-Sud)
F. Dumortier (Limburgs Univ. Centrum)
H. Eliasson (Paris 7)
G. Forni (Princeton University)
X. Gomez-Mont (CIMAT, Guanajuato)
S. Hayashi (University of Tokyo)
Yu. Il'Yashenko (Moscow State University Cornell University)
M. Jakobson (University of Maryland)
K. Khanin (Heriot-Watt University)
J. Kiwi (Pontificia Universidad Catolica de Chile)
D. Kleinbock (Brandeis University)
O. Kozlovski (University of Warwick)
S. Kuksin (Heriot-Watt University)
R. Labarca (Universidad Santiago de Chile)
J. Lewowicz (Universidad de la Republica, Montevideo)
M. Lyubich (SUNY at Stony Brook)
R. MacKay (Cambridge University)
G. Margulis (Yale University)
R. Markarian (Universidad de la Republica, Montevideo)
J. Mather (Princeton University)
J. Milnor (SUNY at Stony Brook)
C.G. Moreira (IMPA, Rio de Janeiro)
S. Newhouse (Michigan State University)
G. Paternain (Universidad de la Republica, Montevideo)
M. Paternain (Universidad de la Republica, Montevideo)
E. Pujals (UFRJ, Rio de Janeiro)
F. Przytycki (Polish Academy of Sciences)
J. Rocha (Universidade do Porto)
R. Roussarie (Universite' de Bourgogne)
D. Ruelle (IHES Rutgers University)
J. Seade (UNAM, Mexico City)
L. Shilnikov (N.I. Lobachevskii State University, Nizhni Novgorod)
M. Shishikura (Hiroshima University)
D. Szasz (Hungarian Academy of Sciences)
F. Takens (University of Groningen)
D. Treshchev (Moscow State University)
D. Turaev (WIAS, Berlin)
R. Ures (Universidad de la Republica, Montevideo)
S. Van Strien (University of Warwick)
A. Verjovsky (UNAM, Cuernavaca)
L.-S. Young (Courant Institute of Mathematical Sciences, New York)
E. C. Zeeman (Oxford)

PARTICIPATION

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Mathematicians from all countries that are members of the UN, UNESCO or IAEA may attend the activity. The main purpose of the Centre is to help research workers from developing countries through a programme of training activities within a framework of international cooperation. However, students and post-doctoral scientists from developed countries are also welcome to attend. As the activity will be conducted in English, participants should have an adequate working knowledge of that language. Participants should preferably have completed some years of study and research after a first degree.

As a rule, all expenses of the participants should be borne by the home institution. However, a limited number of financial grants are available for participants from developing countries. As scarcity of funds allows travel to be granted only in few exceptional cases, every effort should be made by candidates to secure support for their fares (or at least half of their fares) from their home country.

There is no registration fee for participation in the activity. Graduate and doctoral students should include with their application two letters of recommendation.

The closing date for submitting requests for participation is 31 March 2001. The decision of the organizers will be communicated to all candidates as soon as possible thereafter.

The "Request for Participation" form, to be found appended to this Bulletin (obtainable also via electronic mail: smr1321@ictp.trieste.it, using as Subject: get announcement, or via WWW server: <http://www.ictp.trieste.it/>) should be completed, signed, and mailed to:

The Abdus Salam International Centre for Theoretical Physics
School and Workshop on Dynamical Systems
(c/o Ms. A. Bergamo)
Strada Costiera 11
I-34014 Trieste
Italy

Telephone: +39 - 040 - 2240201
Telefax: +39 - 040 - 2240490
e-mail: smr1321@ictp.trieste.it

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PLEASE DETACH HERE

NOTE: Better resolution if printed using Courier 10

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REQUEST FOR PARTICIPATION

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School and Workshop on Dynamical Systems

30 July - 17 August 2001

e-mail: smr1321@ictp.trieste.it

INSTRUCTIONS

Each question must be answered clearly and completely. Type or print in ink. If more space is required, attach additional pages. The completed application form should be sent to:

The Abdus Salam International Centre for Theoretical Physics
School and Workshop on Dynamical Systems (c/o Ms. A. Bergamo)
Strada Costiera 11
I-34014, Trieste, Italy
to arrive no later than 31 March 2001.

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GRADUATE AND DOCTORAL STUDENTS SHOULD INCLUDE TWO LETTERS OF RECOMMENDATION.

IMPORTANT: Application forms sent via e-mail will be accepted ONLY when the deadline is imminent. The file should be sent as attachment, in RTF format. In any case, a signed hard copy must follow by post.

A recent photograph
of the candidate should
be attached here, signed
legibly on the reverse.

NOTE: This request will be processed only if the permanent address (and present address, if different) is clearly indicated. The ICTP cannot process any visa request, unless all requested personal data are provided.

P E R S O N A L D A T A

For women only
(if applicable)
SURNAME/FAMILY Name: MAIDEN Name: First Name: Middle Name(s): Sex:

IMPORTANT: PLEASE ALSO COMPLETE THIS SECTION, IF YOUR NAMES IN YOUR PASSPORT ARE SPELT DIFFERENTLY FROM THE ABOVE.

For women only
(if applicable)
SURNAME/FAMILY Name: MAIDEN Name: First Name: Middle Name(s):

Place of birth (City and Country):

Present nationality:

Date of birth: Year - Month - Day

Full address of permanent Institution:

Institute: Tel. No.:
Telex/Cable:
Telefax:

Your Office: Tel. No.:
Telefax:
e-mail *:

Full address of present Institution (if different from permanent):

Institute: Tel. No.:
Telex/Cable:
Telefax:

Your Office: Tel. No.:
Telefax:
e-mail *:

until: Date

(*) My e-mail address(es) may be made public on the ICTP WWW pages:

YES /___/ NO /___/

Home address:

Tel. No.

Mailing address - please indicate whether:

Permanent /___/ Present /___/ Home /___/

Name and address of person to notify in case of emergency - Relationship:

Tel. No.:

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EDUCATION (higher degrees)

University or equivalent Name and place	Years attended From to	Degrees
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Seminars, summer schools, conferences or research

Name and place	Year
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SCIENTIFIC EMPLOYMENT AND ACADEMIC RESPONSIBILITY

Research Institution or University Name and place	Period of duty From to	Academic responsibilities
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Present employment and duties, and foreseen employment upon return to home country after the activity:

Have you participated in past ICTP activities? If yes, which?

YES /___/ NO /___/

Are you applying to any other 2001 ICTP activities? If yes, which?

YES /___/ NO /___/

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Mention briefly your previous research experience, and explain your reasons for wishing to participate in this activity:

NB: Our Scientific Information System keeps track of all applications made by the candidate to earlier ICTP activities. As a consequence, when the subject of the present activity is far from your previous applications, an explanation (not more than 200 words) of your change of interest should be included.

PRESENT FIELD OF INTEREST (please indicate on the list below your TWO primary fields of interest, in order of priority, 1 and 2).

- | | |
|--|---|
| 10. PHYSICS OF CONDENSED MATTER | 60. PHYSICS TEACHING |
| 11. Solid State Physics | 61. English |
| 12. Atomic and Molecular Physics | 62. French |
| 13. Materials Science | 63. Spanish |
| 14. Surfaces and Interfaces | 64. Arab |
| 15. Statistical Physics | |
| 16. Computational Physics in
Condensed Matter | 80. MISCELLANEOUS |
| 20. PHYSICS OF HIGH AND
INTERMEDIATE ENERGIES | 81. Others |
| 21. High Energy and Particle Physics | 82. Digital Communications Computer
Networking |
| 22. Relativity, Cosmology Astrophysics | |
| 23. Plasma Physics | 90. PHYSICS OF THE LIVING STATE |
| 24. Nuclear Physics | 91. Neurophysics |
| | 92. Biophysics |
| | 93. Medical Physics |
| 30. MATHEMATICS | |
| 31. Applicable Mathematics including:
- Mathematical Ecology,
- Systems Analysis,
- Mathematical Economy
- Mathematics in Industry | |
| 33. Algebra | AO. APPLIED PHYSICS |
| 34. Geometry | A1. Physics in Industry |
| 35. Topology | A2. Microelectronics |
| 36. Differential Equations | A3. Fibre Optics for Communications |
| 37. Analysis | A4. Instrumentation |
| 38. Mathematical Physics | A5. Synchrotron Radiation |
| | A6. Non-destructive Evaluation |
| | A7. Lasers |
| | AA. Applied Superconductivity |
| 40. PHYSICS AND ENERGY | B1. SPACE PHYSICS |

- 41. Physics of Nuclear Reactors
- 42. Physics of Controlled Fusion
- 43. Non-Conventional Energy
(Solar, Wind and others)
- 44. Nuclear Energy related technologies

50. PHYSICS AND ENVIRONMENT

- 51. Solid Earth Geophysics
- 52. Soil Physics
- 53. Climatology and Meteorology
- 54. Physics of the Oceans
- 55. Physics of Desertification
- 56. Physics of the Atmosphere, Troposphere
Magnetosphere, Aeronomy
- 57. Environmental Monitoring and Remote Sensing

Kindly supply a keyword description of your current scientific activities, as follows (strictly within indicated lengths) :

1) Area of research: (e.g. DYNAMICAL SYST.)

/_____/

(no more than 15 characters)

2) Specific topic of interest: (e.g. COMPLEX DYNAMICS)

/_____/

(no more than 30 characters)

List your scientific publications including books and articles (authors, title, Journal) in the period 1993-2000:

Kindly state any positions you hold in the scientific administration of your Institution or any of the national scientific Institutions.

Indicate below your proficiency in the English language

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Reading: Good /__/ Average /__/ Poor /__/
 Writing: Good /__/ Average /__/ Poor /__/
 Speaking: Good /__/ Average /__/ Poor /__/

APPLICABLE ONLY FOR CANDIDATES FROM DEVELOPING COUNTRIES

(Important: Owing to limited funds, support for travel will be granted only in exceptional cases. Therefore, every effort should be made by applicants to secure support for their fare (or at least a partial contribution) from their home country).

Request for Financial Assistance: (Please tick ONE box only)

Full Travel + Subsistence Subsistence only
 Half Travel + Subsistence No financial support requested

I certify that if granted funds by ICTP for my travel, I shall attend the whole activity

.....
Signature

I certify that the statements made by me above are true and complete. If accepted, I undertake to refrain from engaging in any political or other activities which would reflect unfavourably on the international status of the ICTP. I understand that any breach of this undertaking may result in the termination of the arrangements relating to my visit at the Centre.

Signature of applicant

Date

=====end of application=====

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