

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

## **smr1304/Announcement**

---

COLLEGE ON SOIL PHYSICS

12 - 30 MARCH 2001

followed by

WORKSHOP ON

"SOIL SYSTEMS IN THE CONTEXT  
OF CLIMATE CHANGE"

2 - 6 APRIL 2001

Miramare - Trieste, Italy

The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy, will organize a College on Soil Physics, to be held from 12 to 30 March 2001. The College will be followed by a Workshop on Soil Systems in the context of Climate Change from 2 - 6 April 2001.

### DIRECTORS

#### College on Soil Physics

Prof. D. Gabriels (Department of Soil Management and Soil Care,  
Ghent University, Belgium)

Prof. D. Nielsen (Department of Land, Air and Water Resources,  
University of California, Davis, U.S.A.)

Prof. I. Pla Sentis (Facultad de Agronomia, Universidad Central de  
Venezuela,

Maracay, Venezuela/Departamento de Medi Ambient i

Ciencias del Sol, Universitat de Lleida, Lleida, Spain)

Prof. E. Skidmore (U.S. Department of Agriculture, Manhattan, Kansas,  
U.S.A.)

Workshop on "Soil Systems in the context of Climate Change"

## ICTP: smr1304/Announcement

Prof. U. Aswathanarayana (c/o Ministry of Environment, Maputo,  
Mozambique)

LOCAL ORGANIZER (for both Activities)

Prof. G. Ghirardi (University of Trieste and ICTP, Trieste, Italy)

### PURPOSE AND NATURE

The College aims to provide participants with a knowledge of soil physical properties and processes so that they may understand and solve agronomic, engineering and environmental problems and activities such as drainage, irrigation, erosion, fertilization, soil pollution. The College will be in part descriptive and theoretical, but special attention will also be given to practical applications, instrumentation, measurement techniques and modelling of physical processes in the soil. The Workshop is aimed at developing integrated coping strategies to mitigate the adverse consequences of climate change through an understanding of the inter-relationships between the biophysical and socioeconomic factors involved. Emphasis will also be placed on interactions/discussions with the participants, and time will be made available for those participating to give special presentations. Applicants are encouraged to prepare a short resumé of their work and research activities.

The following topics will be covered during the College:

€ Soil (genesis, pedotransfer functions, intrinsic and temporal properties,

and property measurements)

€ Soil-water-plant relationships (infiltration, drainage, evaporation, water

balance)

€ Erosion processes (physics, measurement, prediction, and control)

€ Solute transport processes (leaching, soil salinity, pollution and remediation)

€ Spatial processes (geostatistics, applied time series, GIS, monitoring

technology)

The themes of the Workshop are:

€ Implications of climate change scenarios for soil parameters

€ Carbon sequestration in agricultural soils as a way of mitigating the

greenhouse effect

€ Soil CO<sub>2</sub> - soil moisture - evapotranspiration - crop productivity

€ Coastal soils and saline agriculture in the context of climate change

€ Integrated Assessment Models (IAMs) of climate change, and costing of

mitigation options, scientist - stakeholder interaction to implement coping

scenarios

#### PARTICIPATION

The College and Workshop are intended for students and professionals with varied background in physics, mathematics, soils, engineering, agricultural and environmental sciences. They are open to scientists from all countries that are members of the UN, UNESCO or IAEA. The main purpose of the ICTP is to help research workers from developing countries, but graduate students and post-doctoral scientists from developed countries will also be welcome to attend the activity. Participants should preferably have completed several years of study and research after a first degree. As the College will be conducted in English, participants should have an adequate working knowledge of that language.

As a rule, travel and subsistence expenses of the participants should be borne by the home institutions. However, limited funds are available for some scientists from developing countries. As scarcity of funds allows travel to be granted only in a few exceptional cases, every effort should be made by candidates to secure support for their fare (or at least half-fare) from their home country. It is stressed that participants whose travel expenses are paid by the ICTP are required to attend the entire College and Workshop. There is no registration fee for this College.

The closing date for requesting participation is 15 December 2000. The request for participation form, to be found at the back of the Bulletin (also obtainable via e-mail: [smr1304@ictp.trieste.it](mailto:smr1304@ictp.trieste.it), by typing on the subject line "get index", or via WWW Server: <http://www.ictp.trieste.it/>), should be completed, signed and sent to the below address. If sending an application by e-mail, please save and send file attachments in RTF format.

the Abdus Salam International Centre for Theoretical Physics

College on Soil Physics (SMR1304)

and Workshop on "Soil Systems in the context of Climate Change"

(c/o Ms. G. De Meo)

Strada Costiera 11, I-34014 Trieste, Italy

Telephone: +39 040 2240355

Telex: 460392 ICTP I

Telefax: +39 040 2240585

E-mail: smr1304@ictp.trieste.it

Trieste, October 2000

---

UNITED NATIONS EDUCATIONAL SCIENTIFIC AND CULTURAL ORGANIZATION

and

INTERNATIONAL ATOMIC ENERGY AGENCY

the ABDUS SALAM INTERNATIONAL CENTRE FOR THEORETICAL  
PHYSICS

Strada Costiera 11

Telephone: +39-040-2240355

I-34014 Trieste

Telex: 460392 ICTP I

Italy

Telefax: +39-040-224585

REQUEST FOR PARTICIPATION

COLLEGE ON SOIL PHYSICS

12 - 30 March 2001

followed by

Workshop on "SOIL SYSTEMS IN THE CONTEXT OF CLIMATE CHANGE"

2 - 6 April 2001

E-mail: SMR1304@ictp.trieste.it

---

INSTRUCTIONS

Each question must be answered clearly and completely. A recent photograph of

Type or print in ink. If more space is required, the candidate should

attach additional pages. This form should be forwarded be attached here,

to the: the Abdus Salam International Centre for signed legibly on the College on Soil Physics and reverse.

Workshop on "Soil Systems in the Context of Climate

Change, (c/o G. De Meo), Strada Costiera 11, I-34014

Trieste, Italy, to arrive no later than 15 December 2000.

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.

If sending an application by e-mail, please save and send file attachments in RTF format.

=====

P E R S O N A L   D A T A

---

SURNAME/FAMILY Name:      MAIDEN NAME:      First name:      Middle name(s):  
Sex:

For women only (if applicable)

---

IMPORTANT: PLEASE ALSO COMPLETE THIS SECTION, IF YOU NAME(S) IN YOUR PASSPORT

# ICTP: smr1304/Announcement

ARE SPELT DIFFERENTLY FROM THE ABOVE.

SURNAME/FAMILY Name:      MAIDEN NAME:      First name:      Middle name(s)

For women only (if applicable)

---

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:  
  
until date .....      E-mail:\*

---

Home address:      Tel. No.

---

Mailing address - please indicate whether: Permanent address \_\_\_\_\_

Present address \_\_\_\_\_

Home address \_\_\_\_\_

---

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

Tel no: \_\_\_\_\_

---

\* I agree that my e-mail address(es) be made public on the  
ICTP WWW page: YES \_\_\_\_\_ NO \_\_\_\_\_

EDUCATION (higher degrees)

University or equivalent Degrees	Years attended
-------------------------------------	----------------

Name and place	From	To
----------------	------	----

---

Seminars, summer schools, conferences or research

Name and place
Year

---

SCIENTIFIC EMPLOYMENT AND ACADEMIC RESPONSIBILITY

Research Institution or University Academic	Period of duty	
Name and place responsibilities	From	To

Present employment and duties, and foreseen employment upon return to home country after the activity:

---

Have you participated in past ICTP activities:                      Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, which?

Are you applying to any other 2000 ICTP activities?

If yes, which?    Yes \_\_\_\_\_ No \_\_\_\_\_

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).

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

81. Others

INTERMEDIATE ENERGIES  
Communications

82. Digital

and Computer

Networking

21. High Energy and Particle Physics

22. Relativity, Cosmology Astrophysics STATE 90. PHYSICS OF THE LIVING

23. Plasma Physics

24 Nuclear Physics

91. Neurophysics

92. Biophysics

30. MATHEMATICS

93. Medical Physics

31. Applicable Mathematics including:      AO. APPLIED PHYSICS
- Mathematical Ecology,
  - System Analysis,      A1. Physics in  
Industry
  - Mathematical Economy      A2. Microelectronics
  - Mathematics in Industry      A3. Fibre Optics for
- 33 Algebra      Communications
34. Geometry      A4. Instrumentation
35. Topology      A5. Synchrotron  
Radiation
36. Differential Equations      A6. Non-destructive  
Evaluation
37. Analysis      A7. Lasers
38. Mathematical Physics      AA. Applied  
Superconductivity
- B1. SPACE PHYSICS
40. PHYSICS AND ENERGY
41. Physics of Nuclear Reactors
42. Physics of Controlled Fusion
43. Non-Conventional Energy  
(Solar, Wind and others)
50. PHYSICS OF THE 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. ....)

|\_\_\_\_\_|

(no more than 15 characters)

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

|\_\_\_\_\_|

(no more than 30 characters)

---

List your scientific publications including books and articles (authors, title, Journal) in the period 1995–2000:

---

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

It would be of assistance to the Selection Committee if this request for participation were accompanied by a letter of recommendation, especially for junior physicists.

---

Indicate below your proficiency in the English language

Indicate below your proficiency in the English language

Reading: Good \_\_\_\_\_ Writing: Good \_\_\_\_\_ Speaking: Good \_\_\_\_\_

Average \_\_\_\_\_ Average \_\_\_\_\_  
Average \_\_\_\_\_

Poor \_\_\_\_\_ Poor \_\_\_\_\_ 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 for my

## ICTP: smr1304/Announcement

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 candidate

Date

---

 BACK to [ICTP smr1304](#)