ICTP − The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy

smr1308/Announcement

THIRD ANTONIO BORSELLINO COLLEGE on NEUROPHYSICS

Evolution of Intelligent Behaviour

An IBRO Neuroscience School

23 April − 4 May 2001
Miramare, Trieste, Italy
Co−sponsored by:
International Brain Research Organization − IBRO
International Centre for Genetic Engineering and Biotechnology − ICGEB
Scuola Internazionale Superiore di Studi Avanzati − SISSA

The Abdus Salam International Centre for Theoretical Physics (ICTP) will organize the Third Antonio Borsellino College on Neurophysics: "Evolution of Intelligent Behaviour", to be held in Trieste from 23 April to 4 May 2001. The College will be directed by Professors Mathew E. Diamond (International School for Advanced Studies (SISSA), Trieste, Italy) and Leah Krubitzer (Department of Psychology and the Center for Neuroscience, University of California − Davis, USA). The local organizer will be Professor Julian Chela−Flores (ICTP and Instituto Internacional de Estudios Avanzados, Caracas, Venezuela).

PURPOSE AND NATURE

The goal of the College is to encourage participants to interact with researchers from disciplines ranging across the neurosciences (developmental neurobiology, evolution, neuro−philosophy, neuromodelling, and functional imaging). The College will address issues regarding how complex neuronal networks have evolved and how they function to endow the brain with the capacity to adapt the individual's behaviour to environmental pressures.

Taking this theme, the Faculty will present lectures addressing the following questions:

- How do neocortical areas develop, and how do developmental programmes become altered in evolution to generate complex brains with many parts?
- How does an increase in the size and number of neocortical areas confer increased processing capacity?
- What is achieved by a cortical module?
- What are the constraints in building a large brain with many areas, and can observations of convergent evolution of neural organization provide insights into these constraints?
- How does the evolution of large brains co−evolve with behavioural specializations, social systems, and ecological niches?
- How did higher order processes such as language and consciousness evolve?
- What are the genetic and epigenetic contributions to neocortical variability in mammals (adult and developmental plasticity)?
- How does the neocortex contribute to perceptual learning?

PROGRAMME

Four lectures will be presented each day, embedded within ample discussion periods. At least one day will also be dedicated to poster and slide presentations by the Collegeís participants.

Lecturers include:

Luca Bonatti SISSA, Trieste
Jon Chapin* State University of New York, Brooklyn
Daniel Dennett Tufts University
Mathew Diamond SISSA, Trieste
Ford Ebner Vanderbilt University, Nashville
Barbara Finlay Cornell University, Ithaca
William Hall Duke University, Durham
Justin Harris SISSA, Trieste
David Hubel Harvard University, Cambridge
Edward G. Jones University of California, Davis
Jon Kaas Vanderbilt University, Nashville
Bob Knight University of California, Berkely
Kristof Koch California Institute of Technology, Pasadena
Leah Krubitzer University of California, Davis
Jacques Mehler* SISSA, Trieste
Mike Merzenich University of California, San Francisco
Dennis O'Leary Salk Institute, San Diego
Bruno Olhausen University of California, Davis
Giacomo Rizzolatti* University of Parma
Alessandro Treves SISSA, Trieste

*to be confirmed

PARTICIPATION

The College should be of interest to researchers from many fields of neuroscience, including psychology, neurophysiology, computational biology, and theoretical modelling. Applicants should have a good basic knowledge concerning brain organization and function.

It is open to scientists from all countries that are members of the UN, UNESCO or IAEA. Although one of the main purposes of the ICTP is to help researchers from developing nations, graduate students and post doctoral scientists from developed nations will also be welcome to attend. As the College will be conducted in English, participants must have a good working knowledge of that language.

As a rule, travel and subsistence expenses of participants should be borne by the home institutions. However, limited funds are available for some visitors from developing countries, to be selected by the organizers. In addition, up to 10 scholarships may be awarded by SISSA to outstanding applicants from the EU.

There is no registration fee for attending the College. The closing date for those who wish to request financial support from ICTP is 31 December 2000. Applicants who do not request financial support may apply up to 31 January 2001.

Candidates should complete and sign the "Request for Participation" form

to be found at the back of this Bulletin (also obtainable via e−mail: smr1308@ictp.trieste.it, by typing on the subject line "get announcement", or via the WWW server: http://www.ictp.trieste.it/), and return it within the deadlines indicated above to the following address:

the Abdus Salam International Centre for Theoretical Physics
"Third Antonio Borsellino College on Neurophysics"
(c/o Ms. Patrizia Passarella)
Strada Costiera 11
34014 Trieste, Italy

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

==========end of bulletin==========

PLEASE DETACH HERE

NOTE: Better resolution if printed using Courier 10

==========

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

THE ABDUS SALAM INTERNATIONAL CENTRE FOR THEORETICAL PHYSICS

Strada Costiera 11 Telephone: +39−040−2240111
I−34014 Trieste Telex: 460392 ICTP I
Italy Telefax: +39−040−224163

REQUEST FOR PARTICIPATION

THIRD ANTONIO BORSELLINO COLLEGE on NEUROPHYSICS:
Evolution of Intelligent Behaviour

23 April − 4 May 2001

e−mail: smr1308@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. This form should be forwarded to:

The Abdus Salam International Centre for Theoretical Physics
Third Antonio Borsellino College on Neurophysics
(c/o Ms. P. Passarella)
Strada Costiera 11
I−34014, Trieste, Italy
to arrive no later than 31 December 2000.

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.:

EDUCATION (higher degrees)

University or equivalent Name and place	Years attended From	to	Degrees

---

Seminars, summer schools, conferences or research

Name and place	Year

SCIENTIFIC EMPLOYMENT AND ACADEMIC RESPONSIBILITY

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

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 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, 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
15. Statistical Physics
16. Computational Physics in Condensed Matter

20. PHYSICS OF HIGH AND INTERMEDIATE ENERGIES
21. High Energy and Particle Physics
22. Relativity, Cosmology Astrophysics
23. Plasma Physics
24. Nuclear Physics

30. MATHEMATICS

31. Applicable Mathematics including:
- Mathematical Ecology,
- Systems Analysis,
- Mathematical Economy
- Mathematics in Industry
33. Algebra
34. Geometry
35. Topology
36. Differential Equations
37. Analysis
38. Mathematical 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 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

64. Arab

80. MISCELLANEOUS

81. Others
82. Digital Communications Computer Networking

90. PHYSICS OF THE LIVING STATE
91. Neurophysics
92. Biophysics
93. Medical Physics

AO. APPLIED PHYSICS
A1. Physics in Industry
A2. Microelectronics
A3. Fibre Optics for Communications
A4. Instrumentation
A5. Synchrotron Radiation
A6. Non-destructive Evaluation
A7. Lasers
AA. Applied Superconductivity

B1. SPACE PHYSICS

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

1) Area of research: (e.g. PHYS LIVING STATE)

/_____/
(no more than 15 characters)

2) Specific topic of interest: (e.g. NEUROPHYS, DEVELOPMENT, EVOLUTION)

/_____/
(no more than 30 characters)

List your scientific publications including books and articles (authors, title, Journal) in the period 1992−1999:

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

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==========

BACK to ICTP smr1308