



The Abdus Salam
International Centre for Theoretical Physics



ICTP PRIZE CEREMONY
MAY 17, 2005

BERNARDO GABRIEL MINDLIN

Citation for the award of the 2004 ICTP Prize

The 2004 ICTP Prize in honour of Arthur Taylor Winfree is awarded to Bernardo Gabriel Mindlin of the Department of Physics, University of Buenos Aires, Argentina.

Gabriel Mindlin is a theorist who has made important contributions to the fundamental, applied and interdisciplinary aspects of nonlinear dynamical systems. In his publications---over fifty well-cited papers appearing in major journals, as well as in books---he has made original contributions to fields as diverse as solar activity, lasers, neural modeling, speech recognition and bird songs.

His early work---a characterization of strange attractors in terms of their topology as opposed to delicate metric properties like dimensions and entropies---had a significant impact. Later, as an independent researcher first in Spain and then in Argentina, he studied the effect of broken symmetries in pattern formation. In recent years, he has shifted his attention to the dynamics of the vocal apparatus. He began with a study of vowels in human speech and then moved on to the investigation of the "syrinx" (the song-making organ) of birds, which is much better accessible experimentally.

Mindlin's work has always had strong contacts with experiment. He is currently involved in an international collaboration on avian physiology.

Mindlin is a leading figure in his group, actively striving---and managing---to achieve international standards. He is an original, self-motivated and imaginative researcher who seeks out important problems in interdisciplinary areas. He provides a very good example for young scientists starting a career in developing countries.

The 2004 ICTP Prize in honour of Arthur Taylor Winfree
will be awarded to

BERNARDO GABRIEL MINDLIN
(University of Buenos Aires, Argentina)

by
KOÏCHIRO MATSUURA
(Director-General, UNESCO)

on Tuesday, May 17, 2005
in the Main Lecture Hall
of the ICTP Main Building

Programme

- 09:30 - 10:30 Welcome address by K.R. Sreenivasan, Director, ICTP
- Interventions by
- Misir Mardanov, Minister of Education, Azerbaijan Republic
- C.N.R. Rao, President, the Academy of Sciences for the Developing World (TWAS)
- Renato Angelo Ricci, Honorary President, Italian Physical Society
- Victorio María José Taccetti, Argentinean Ambassador in Rome
- Presentation of the ICTP Prize by Koïchiro Matsuura
- Brief response by Bernardo Gabriel Mindlin
- Address by Koïchiro Matsuura
- Coffee will be served in the Lobby of the Main Building immediately after the Ceremony.*
- 16:00 **ICTP Prize Lecture by Bernardo Gabriel Mindlin:
"The Physics and Neural Control of Birdsong"**