

## ABOUT THE ICTP PRIZE SCULPTURE

The ICTP Prize sculpture consists of a plaque emerging out of stone, symbolizing the emergence of new, refined knowledge. The stone base is made of Aurisina marble, which has been quarried in the vicinity of Trieste for more than 2000 years. The special kind of stone and the waves represent Trieste's setting between the karstic hills and the sea.

## 2015 ICTP PRIZE CEREMONY



**29 June 2016**  
**Budinich Lecture Hall**  
**15:30 - 17:30**



The Abdus Salam  
**International Centre  
for Theoretical Physics**



## THE 2015 ICTP PRIZE

*in honour of Stephen Henry Schneider*

ICTP has awarded its 2015 ICTP Prize to two young scientists particularly active in the fields of atmospheric chemistry and physics in connection with climate science:

**Aijun Ding**, for his outstanding contribution to the analysis and simulation of chemical and physical processes related to tropospheric pollution. Ding's studies notably brought new observational and modelling insights on the two-way interactions between anthropogenic pollution, meteorological phenomena and natural components of the earth system such as dust aerosol. Ding's leading works have found immediate applications in terms of understanding and improving air quality and health impacts, as well as meteorological and climate predictions over East Asia. Ding is a Professor at the School of Atmospheric Science, Nanjing University, China.

**Vijayakumar S. Nair**, for his outstanding contribution in the domain of aerosol-climate interactions. Dr. Nair's studies have greatly contributed to a better physical and chemical characterization of absorbing aerosol (soot and natural dust) over heavily polluted regions of India, as well as to a better understanding of how these particles might affect regional hydro-climate through various radiative forcing pathways. Dr. Nair's competencies extend from theoretical aspects of aerosol-radiation interactions to aerosol observational remote sensing techniques as well as climate modelling. Dr. Nair is presently working as a junior scientist at the Space Physics Laboratory of the Vikram Sarabhai Space Centre, Kerala, India.

The 2015 ICTP Prize honours the memory of Professor Stephen Henry Schneider, one of the most prominent figures in climate change research.

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### Programme

- Welcome remarks, Fernando Quevedo, Director, ICTP
- Remembrance of Stephen Schneider, by Filippo Giorgi, Head, Earth System Physics section
- Overview of ozone and aerosol in the Earth system, Fabien Solmon, Research Scientist, Earth System Physics section

### 2015 ICTP Prize Lectures

#### **Air pollution and Weather Interaction in East Asia: From Measurement to Policy**

*Aijun Ding, Nanjing University, China*

This talk will give an introduction to some latest findings of the interactions and feedbacks between weather and the mixed pollution plumes from fossil fuel combustion, biomass burning and natural sources in East Asia, based on measurement results at an integrated ground-based observation platform, SORPE, and on model simulations. The talk will also present some cases to show how basic research of measurement and model simulation support policy making for air quality and even climate change in the region with complex natural environment and intensive human activities.

#### **Effects of Aerosols on Regional Hydroclimate**

*Vijayakumar S. Nair, Vikram Sarabhai Space Centre, India*

This talk is a brief review on the current understanding and gap areas of climate impacts of aerosols over South Asia. After describing the general characteristics and importance of these minor constituents in the atmosphere, the talk will highlight the potential climate implications of these particles, especially on Indian monsoon and enhanced melting of Himalayan glaciers. Various pathways of aerosol induced perturbations to the radiation balance of the earth atmosphere system will be discussed.