



*The Abdus Salam
International Centre for Theoretical Physics*



1867-1

College of Soil Physics

22 October - 9 November, 2007

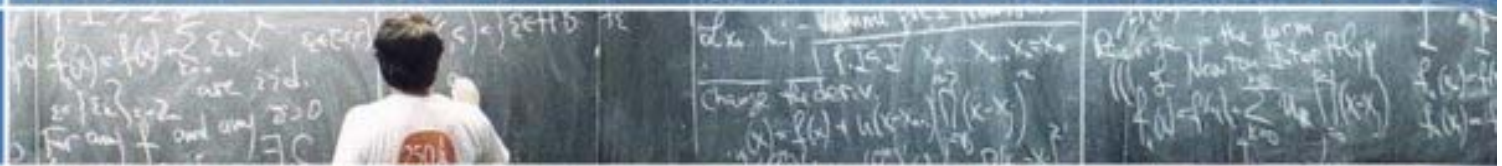
Introduction

Ed Skidmore
USDA-ARS Manhattan, Kansas, USA



The Abdus Salam

International Centre for Theoretical Physics



"Scientific thought is the common heritage of mankind" – Abdus Salam

College on Soil Physics

22 October – 9 November 2007

Miramare – Trieste, Italy

Directors:

Donald Gabriels

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Ildefonso Pla Sentis

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Local Organizer:

GianCarlo Ghirardi

Secretariat:

Nadia van Buuren

WASWC EDITORIAL TEAM MEMBER HAS UNIQUE EXPERIENCE.

On 12-30 September 2005, Claudio Kvolek participated in **College on Soil**

Physics at the Abdus Salam International Centre for Theoretical Physics (ICTP). The ICTP, in Trieste, Italy, located on the shore of the Adriatic Sea, is a unique scientific institution dedicated to both research and training. The Centre has earned an international reputation for its contribution to the advancement of science in developing world with an expanding array of physics topics. The College on Soil Physics is one of the longest continuous running programs at ICTP.

The College on Soil Physics **had a unique beginning.** In 1980, while participating in an ICTP Autumn Course on the **Physics of Flow in Oceans, Atmospheres and Deserts**, Donald **Gabriels**, University of Ghent, Belgium, queried: "ICTP is a great centre of physics but does not include an activity on Soil Physics, how come?" When Edward **Skidmore** soil physicist, arrived to lecture on "**Physics of Desertification**" prompted by the Gabriels' query, Centre officials approached Skidmore with the request: "We are thinking about adding a course on soil physics at ICTP and would appreciate a proposed outline." Skidmore and Gabriels both submitted similar course proposals for a College on Soil Physics. The proposals were approved and funded. The first College on Soil Physics was held in 1983 with Gabriels and Skidmore as co-directors. Subsequently, Donald **Nielsen**, USA, and Ildefonso **Pla Sentis**, Spain, joined Gabriels and Skidmore as directors of the activity. GianCarlo **Ghirardi**, University of Trieste, is the local organizer. Since starting in 1983 ten Colleges on Soil Physics have been held with almost 700 scientists from approximately 70 countries. All inhabited continents have been represented.

The main topics in the 2005 college were: ... - Ing. **Claudio M. Kvolek**, 2005, *Management and Soil Conservation*, University of Buenos Aires, Buenos Aires, Argentina (WASWC Editorial Team), kvolek@agro.uba.ar.



College on Soil Physics, 12 -30 September 2005, ICTP – Trieste, Italy

A photograph of a desert landscape with rolling sand dunes under a clear blue sky. The dunes are golden-brown and have soft, undulating shapes. The sky is a uniform, clear blue. The overall scene is bright and open.

Objective

To give the participant an overview of the soil resource and develop and understanding of fundamental soil physical properties and processes.

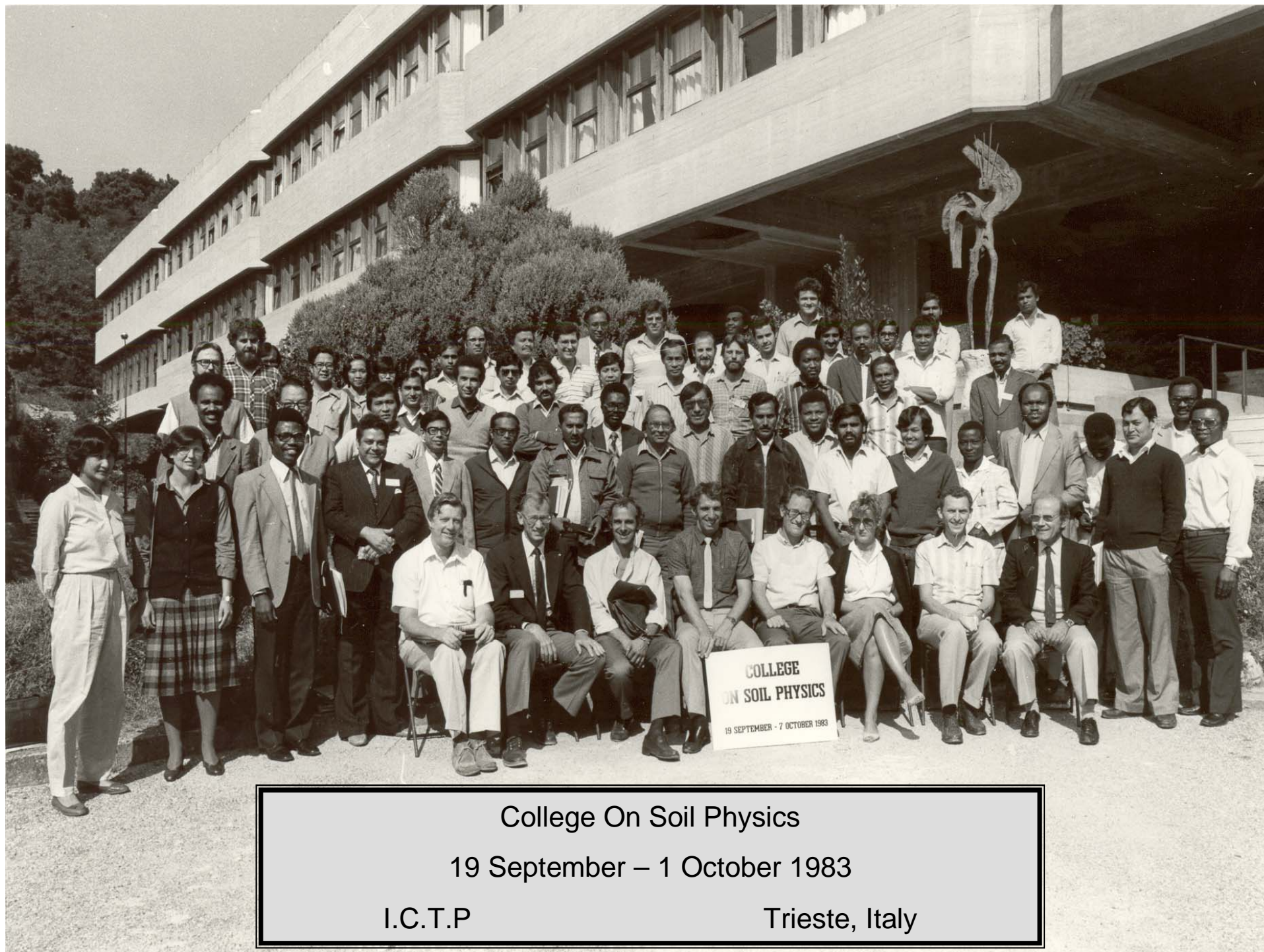
The participant should be able to apply knowledge gained and skills developed to solving problems in soil physics.

Soil Physics Course Outline

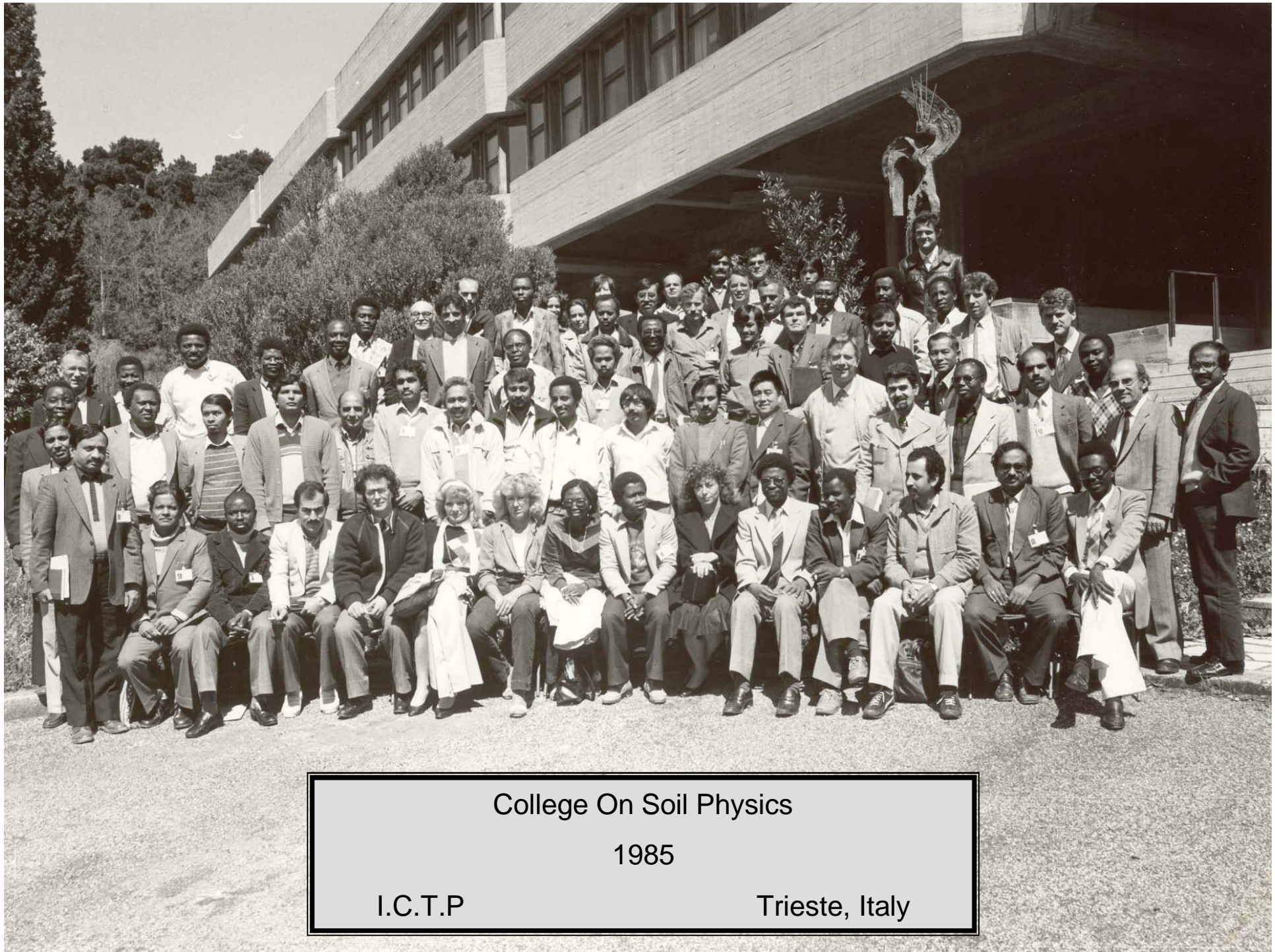
- The soil resource
- Basic physical properties
- Soil Water
- Soil air
- Soil-plant-atmosphere relations
- Soil heat flow and temperature
- Soil erosion by water
- Soil erosion by wind

Soil Physics Course Outline (cont.)

- Desertification
- Geostatistics
- Salinization
- Sodification
- Climate change
- Presentations by participants



College On Soil Physics
19 September – 1 October 1983
I.C.T.P Trieste, Italy

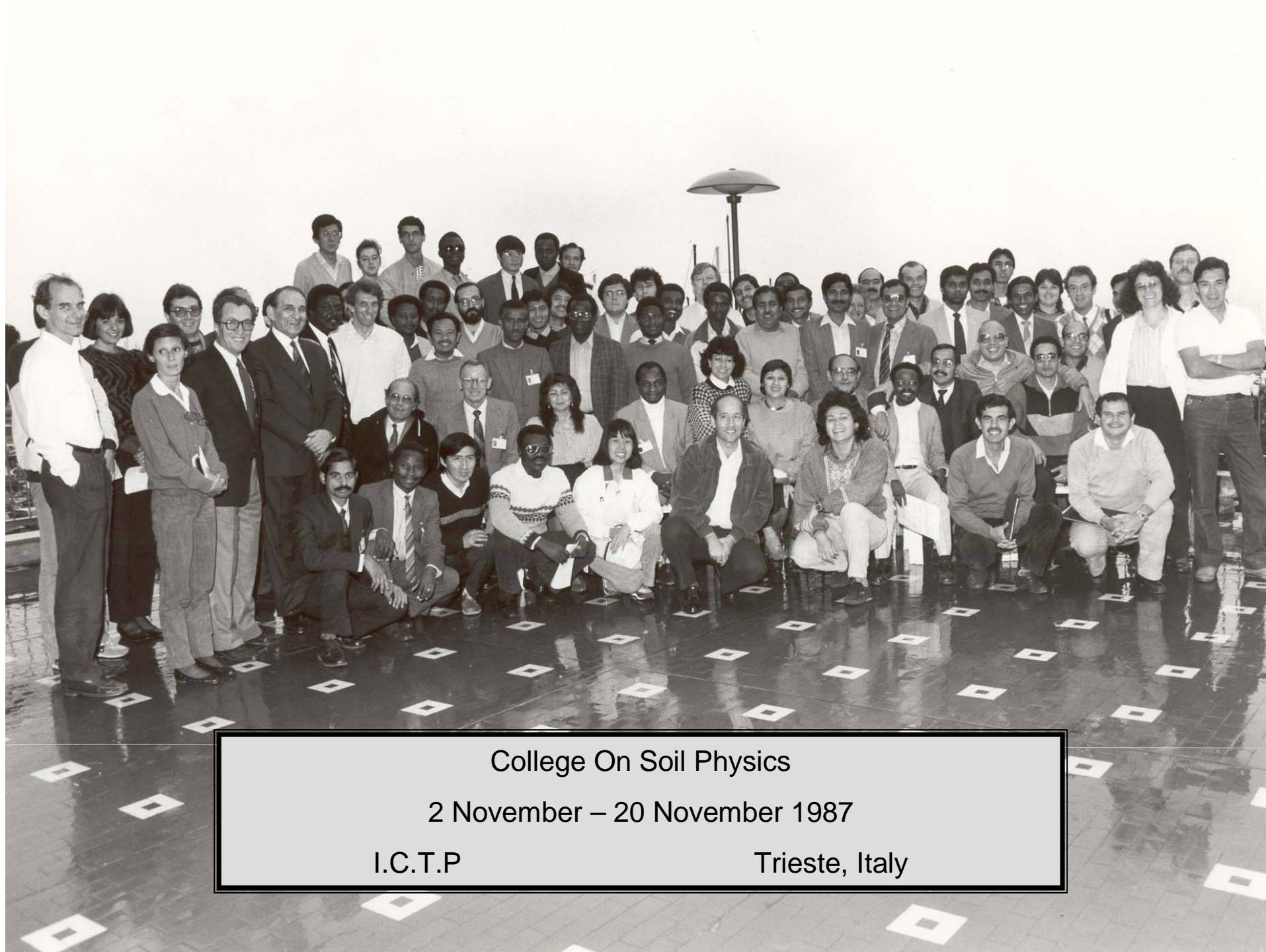


College On Soil Physics

1985

I.C.T.P

Trieste, Italy

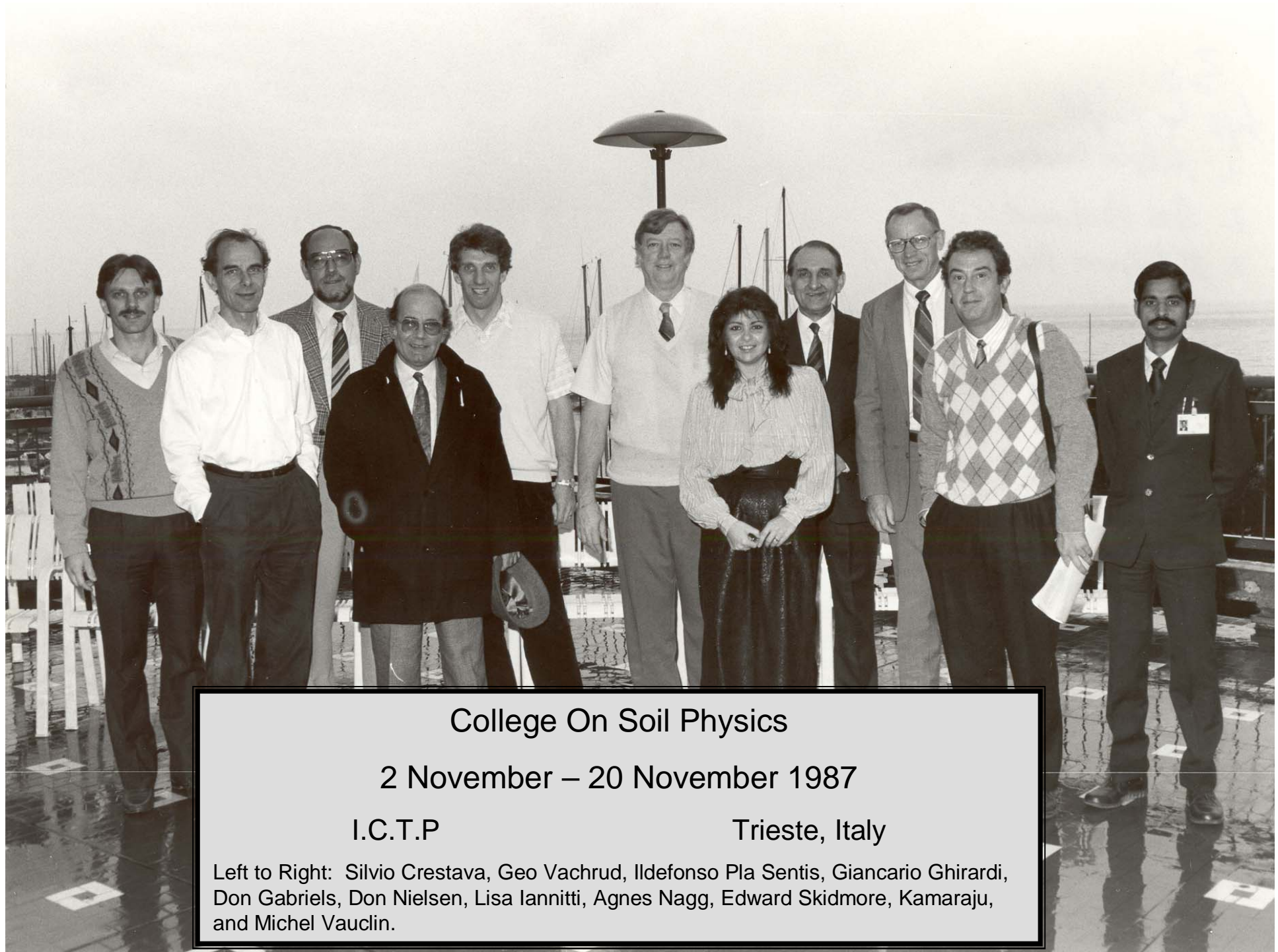


College On Soil Physics

2 November – 20 November 1987

I.C.T.P

Trieste, Italy



College On Soil Physics

2 November – 20 November 1987

I.C.T.P

Trieste, Italy

Left to Right: Silvio Crestava, Geo Vachrud, Ildefonso Pla Sentis, Giancarlo Ghirardi, Don Gabriels, Don Nielsen, Lisa Iannitti, Agnes Nagg, Edward Skidmore, Kamaraju, and Michel Vauclin.



College On Soil Physics

9 October – 27 October 1989

I.C.T.P

Trieste, Italy



College On Soil Physics

9 October – 27 October 1989

I.C.T.P

Trieste, Italy

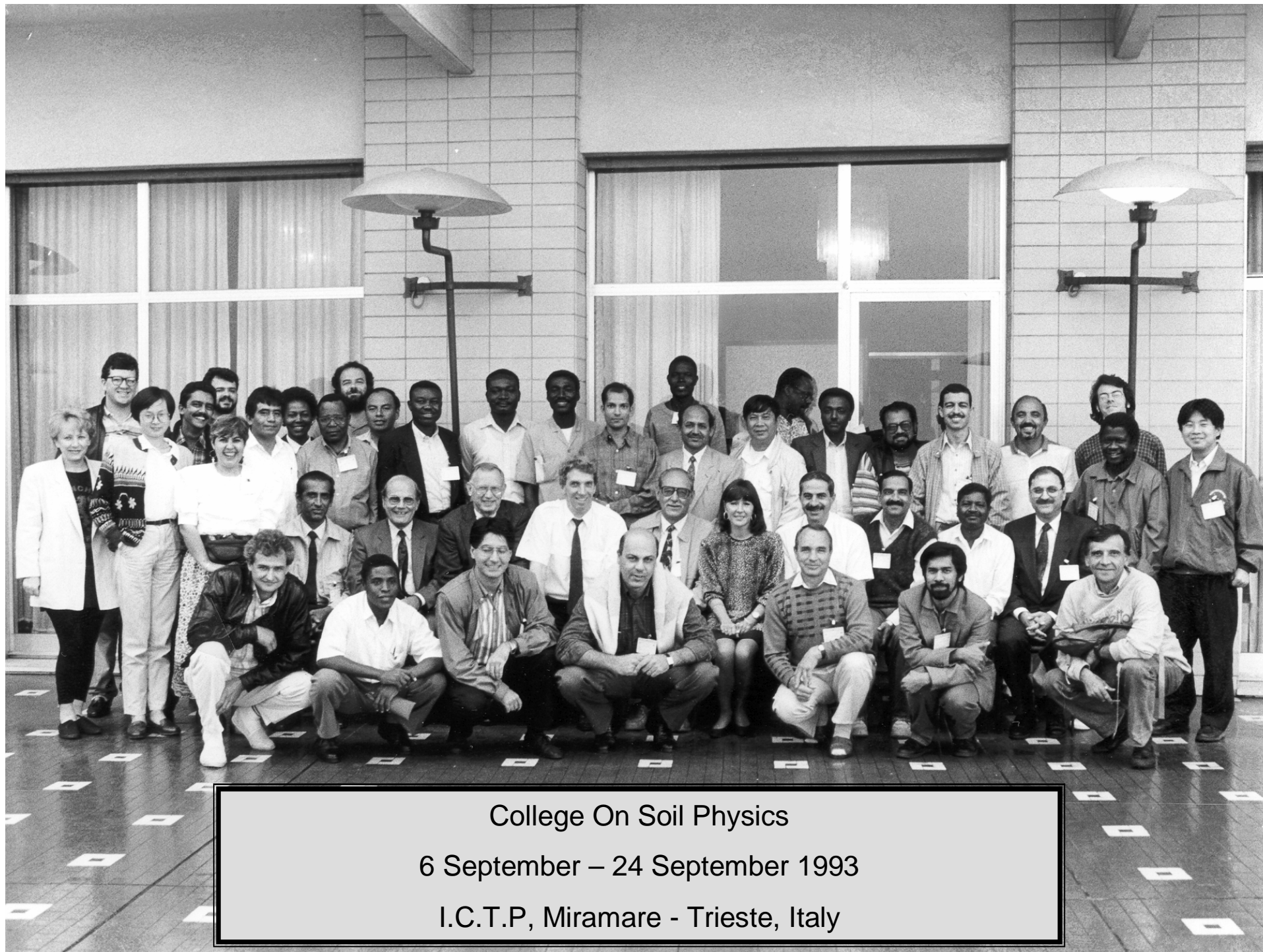


College On Soil Physics

9 October – 27 October 1989

I.C.T.P

Trieste, Italy



College On Soil Physics

6 September – 24 September 1993

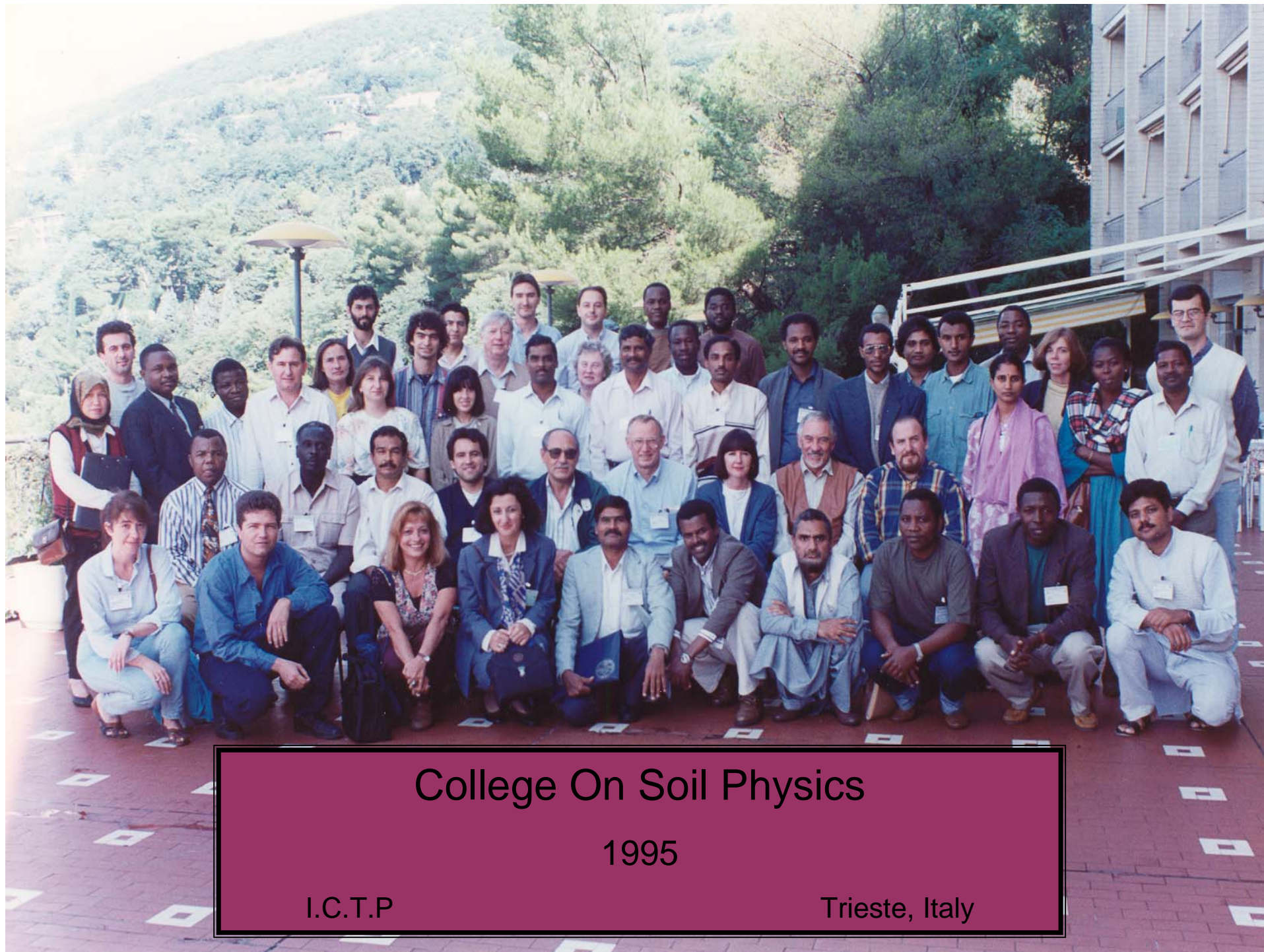
I.C.T.P, Miramare - Trieste, Italy



College On Soil Physics

6 September – 24 September 1993

I.C.T.P, Miramare - Trieste, Italy

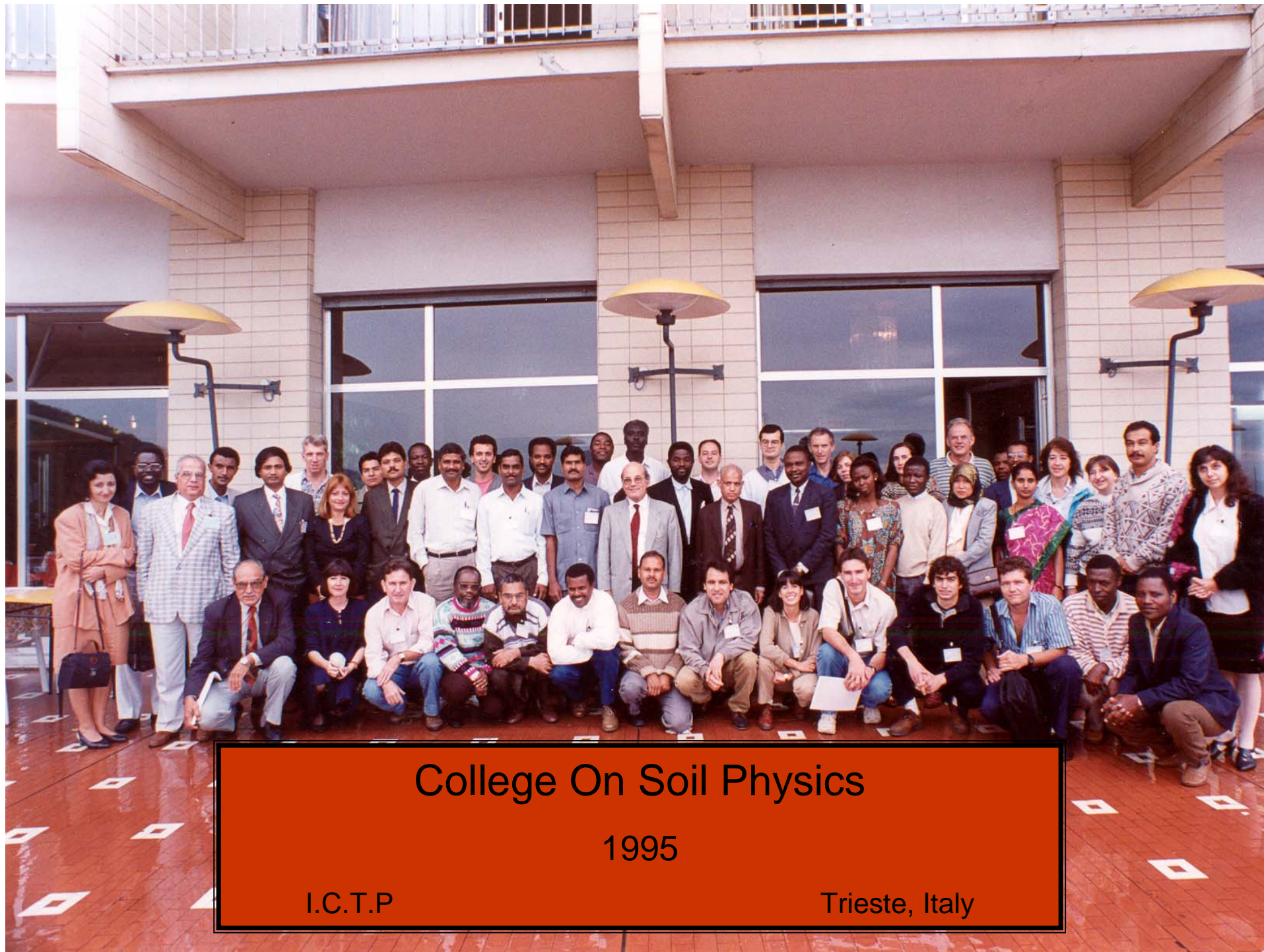


College On Soil Physics

1995

I.C.T.P

Trieste, Italy



College On Soil Physics

1995

I.C.T.P

Trieste, Italy



College On Soil Physics

1998

I.C.T.P

Trieste, Italy



College On Soil Physics 2001

I.C.T.P

Trieste, Italy

Pictured are: Luis Fernando Chavez, Rehab Eltayb Hassan, Ivan Chirinos, Venelina Koleva, Deyanira Lobo, Domnica Breban, Lourdes Ruiz Guterrez, Vladia Correchel, Svetla Rousseva, Marcello Pagliai, Kamal Jeet Singh, Elena Bojilova, Jose' Ronaldo de Machedo, Salona Senoussi, Usha Singh, Shayra Shahira, Xiomara Abreu, Hema Achyuthan, Luis Carlos Timm, Ishwar Paul Sharma, Daniel Okae-Anti, Jozsef Urban, Ildefonso Pla Sentis, Flavia Bartoly Rosa, Moacir Souza Dias Junior, Maria Elena Ruiz Peraz, Lalla Laaziza Ichir, Joao Eduardo Pilotto, Donald Gabriels, Maroslav Kutilek, Jorge Diaz, Kouman Koumanov, Mahmut Basi Halitigil, Anisur Rahman Khan, Milena Kercheva, Gariella De Meo, Mariela Rivera, Giancarlo Ghirardi, Muhammad Latif, Donald Nielson, Charles Asadu, Wang Yu, Sanjay Kumar Sharma, Marco Gani, Pragnessh Gajjar, Alberto Jorge Sfeir, Rajesh Shah and Daniel Kwasi Asare.

20TH ANNIVERSARY COLLEGE ON SOIL PHYSICS

ICTP

MARCH 2003

TRIESTE, ITALY



Front row (seated & kneeling) left to right: Joanne Nielsen, (USA), Maria Teresa Alonso (Cuba), Selina Camacaro (Venezuela), Yezena Huaypar Vasquez (Peru), Teresa Lopez Seijas (Cuba), Daniel Okae-Anti (Ghana), Cretu Mirela-Simona (Romania), Maria Elena Ruiz (Cuba), Olteanu Mirela Carmen (Romania), Ildefonso Pla Sentis (Spain), Adriana Lucia da Silva (Brazil), Ligmar Carolina Lopez Plaz (Venezuela).

Standing left to right: Leonardo Lugo Salinas (Venezuela), Durval Dourado Neto (Brazil), Miguel A. Taboada (Argentina), Radka Kodesova (Czech Republic), Huijun Wu (China), Donald Nielsen (USA), Jesus H. Galvis (Columbia), Sampson Agodzo (Ghana), Roger Hartmann (Belgium), Carlos Espinosa Jimenez (Venezuela), Hanoi Medina (Cuba), Bucur Maria Crina (Romania), Giancarlo Ghirardi (Italy), Donald Gabriels (Belgium), Ravindrababu B.T. (India), Mensah Bonsu (Ghana), Luis Guarracino (Argentina), Jose Miguel de Paz (Spain), Luiz Fernando Pires (Brazil), Svetla Rousseva (Bulgaria), Plamen Ivanov (Bulgaria), Martin Nenov (Bulgaria), Mauro Giudici (Italy), Moacir Dias Junior (Brazil).



College On Soil Physics

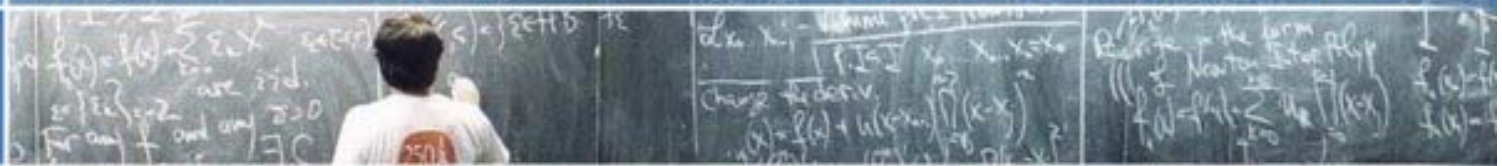
12 - 30 september 2005

I.C.T.P. - Trieste, Italy



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