INTERNATIONAL NIGEL PRIESTLEY SEMINAR

As a part of the School's activities, an International Seminar is organized every year, to provide Master and PhD students with an opportunity to present and discuss their research work to an audience of international experts. The Seminar is named in honour of Prof. Nigel Priestley, co-founder of the ROSE School in 2001.

In addition to standard presentations on research work carried out within the Programmes of the School, the annual Seminar features also the tradition of inviting a prominent scientist to deliver a keynote lecture on a given contemporary and highly relevant topic in the field of Earthquake Engineering and Engineering Seismology. At this year's event, the keynote address entitled "Seismic Design of Tall Buildings - Past, Present, Future" will be delivered by Professor Farzad Naeim, Professor of Civil and Environmental Engineering Practice at the University of Southern California, US.

The Seminar will also include the ROSE Doctoral Defences, featuring a committee of independent international experts in charge of the examination.

NIGEL PRIESTLEY INTERNATIONAL PRIZE

Since 2008, the Prize is attributed with a frequency of two years, rewarding professionals and academics at any stage of their careers who have demonstrated uncommon skills in education or exceptional creativity and innovation capacity in the fields of earthquake engineering and engineering seismology, and have achieved extraordinary research and professional achievements.
The first recipient of the Prize was Professor M.J. Nigel Priestley. The subsequent awardees were Professors V. V. Bertero (2010), L. Esteva (2012) and G.M. Calvi (2014). After the passing away of Professor M.J. Nigel Priestley, the Eucentre Foundation decided to rename the Prize into the Nigel Priestley International Prize. Since then, the awardees were Professors S.L. Kramer (2016), A.K. Chopra (2018) and G. Fenves (2022).
The Prize consists of an art piece created by a renowned sculptor who tries to translate his own feelings and interpretation of earthquakes and their impact on human beings, environment and culture.

IUSS Pavia is the last step of a long-lasting higher education process started on 825 when King Lotharius appointed Pavia, the ancient capital of the Lombard kingdom, as the site for higher education of his kingdom. This process went through the foundation in 1361 by Emperor Charles IV of the Studium Generale later on named University of Pavia. The first Colleges for university students were established in the 15th and 16th centuries. They are now 15 offering, to the almost 2.000 students, a unique opportunity of study and cultural enrichment in a multidisciplinary and multiethnic environment. Through the centuries University of Pavia became one of the leading institutions in Europe.

IUSS fulfils, since 1997, an advanced teaching and research model successfully implemented by other prestigious institutions in Italy, like Scuola Normale Superiore and Scuola Sant'Anna in Pisa. Due to the completeness of its education and training fields, which allows a strong interdisciplinary approach, the mission of IUSS is that of contributing to the growth of a small number of selected students by offering them, at any step of their higher education, qualified programs enhancing their capabilities and knowledge. The Institute is also committed to scientific progress by preparing young researchers and developing scientific research programmes.

ROSE

Centre for Training and Research on Reduction of Seismic Risk

Phone: (+39) 0382.375860
www.iusspavia.it/rose

CAR - Collegio Cardinale Agostino Riboldi

IUSS Scuola Universitaria Superiore Pavia

UNIVERSITÀ DI PAVIA

The Seventh International Nigel Priestley Seminar

Collegio Cardinale Agostino Riboldi
Pavia, Italy
8-9 June 2023

ROSE

Centre for Training and Research on Reduction of Seismic Risk

EUCENTRE FOR YOUR SAFETY.

THE ROSE PROGRAMMES

The Centre for Training and Research on Reduction of Seismic Risk (ROSE) is an established development of the University School of Advanced Studies IUSS Pavia (**www.iusspavia.it**), a higher education institution in Italy that offers international advanced postgraduate programmes. Innovative, internationally planned, open minded, grown on the traditionally fertile soil of the University of Pavia, and based on a system of university halls of residence (Collegi) unique in Italy, IUSS prepares brilliant individuals to take on the most challenging and demanding public and private positions in contemporary Italy, Europe and the rest of the world. In this framework, ROSE offers both MSc and PhD programmes geared towards seismic risk mitigation.

The activities of the ROSE Centre are focused on research and advanced training in the field of seismic risk reduction. They encompass the fields of structural and geotechnical engineering, applied mathematics, structural dynamics, engineering seismology, probability and statistics, advanced numerical analysis and state-of-the-art experimental testing techniques. In particular, the research activities are focused on several specific topics pertinent to the effective quantification and reduction of seismic risk. These include the study of non-structural elements and their role in incurring economic losses in buildings, in addition to retrofit decision-making tools considering both seismic upgrade benefits and potential environmental impacts. The development of seismic design, assessment and risk classification methodologies via advanced probabilistic and statistical approaches for various structures and infrastructures, such as buildings and bridges, also form a core part of the ROSE Centre's research activities. Many of these are carried out in close collaboration between IUSS Pavia and the University of Pavia in addition to the Eucentre Foundation (www.eucentre.it) through their extensive experimental testing facilities.

Training wise, each ROSE course is intensively taught in a period of one to four weeks, during which the respective lecturer is able to fully dedicate their time exclusively to the scholastic activities of the programme, thus ensuring teaching and research training at the highest possible level of quality. All of the above endows a truly unique character, be it for its fully international nature or for its innovative organisation in education and research training. Currently, jointly with the University of Pavia, IUSS runs the MSc in Civil Engineering for Mitigation of Risk from Natural Hazards, (civrisk.unipv.it) featuring two paths: Reduction of Seismic Risk (ROSE) and Hydrogeological Risk Mitigation (HYRIS).

At the PhD level, both the institutions, together with the Eucentre Foundation, run the PhD in Understanding and Managing Extremes, featuring also two paths: Earthquake Engineering (ROSE) and Weather, Geological, Chemical and Environmental Risk (NatRisk).

ATTENDING THE EVENT

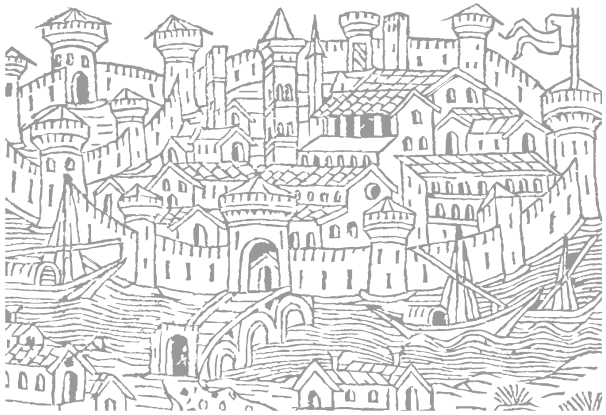
In addition to ROSE faculty and students, a maximum of 50 external participants may also be accepted, for which professionals and researchers worldwide are encouraged to take part in the event. A 160€ fee is required from external attendees, to cover for the cost of coffee/lunch breaks and seminar dinner. Special financial conditions are in place for external university researchers or students, to whom a fee of 120€ is usually requested. Those who wish to attend the Seminar are kindly invited to contact the Eucentre Foundation Secretariat at info@eucentre.it. You may also refer to the IUSS website (**http://www.iusspavia.it/rose**) for further information on the ROSE activities.

VENUE

The ROSE activities are carried out in Pavia, a historical town in the North of Italy (35km from Milan), full of university tradition. The Seminar itself will take place at the Collegio Riboldi, a landmark structure dating back to the second half of the seventeenth century, purposely refurbished to serve as an international hosting facility for postgraduate students and visiting scholars working in the field of natural risk mitigation. It is located in the centre of Pavia, in Via Luigi Porta, 10.

REGISTRATION - CONTACT INFORMATION

EUCENTRE Secretariat
Phone: (+39) 0382.5169811 - E-mail: info@eucentre.it



SEMINAR PROGRAMME

Thursday, 8 June

10:00-12:30	**Session 1 - NatRisk Doctoral Defences** The potential of machine learning for weather-related risks assessment **Luigi Cesarini** A NaTech assessment framework: environmental risk due to tank collapses triggered by flood **Riccardo Giusti** Skill assessment of sub-seasonal forecast of extreme precipitation events over Italy **Wazita Scott**
14:30-16:00	**Session 2 - ROSE Doctoral Defences** Seismic performance of framed retrofit solutions for unreinforced masonry buildings **Niccolò Damiani** Large-scale seismic risk assessment of existing masonry-infilled buildings in Italy **Gianrocco Mucedero**
16:00-16:30	*Coffee break*
16:30-18:00	**Session 3 - ROSE Doctoral Defences** Integrated Evaluation of Earthquake-Induced Economic Losses for Multi-Span Reinforced Concrete Bridges **Volkan Ozsarac** 3D stochastic ground motion simulation for structural response analysis **Luis Alvarez**
19:30	*Seminar Dinner*

Friday, 9 June

9:30-11:00	**Session 4 - ROSE Alumni** Some contributions to Reinforced Concrete Wall Research: a 10-year account by a Rose Alumnus **João Almeida** - Université catholique de Louvain, Belgium Wellington: Earthquake laboratory **Matthew Fox** - University of Pavia, Italy The seismic safety of code-conforming buildings: how and why **Iunio Iervolino** - Univ. of Naples Federico II - IUSS Pavia, Italy
11:00-11:30	*Coffee break*
11:30-13:00	**Session 5 - ROSE Alumni** Physics-based simulations of earthquake ground motion for engineering applications: perspectives and challenges **Chiara Smerzini** - Politecnico di Milano, Italy Direct Displacement-Based Design for Essential Facilities: Reykjavik's Nyr Landspitali Hospital **Alfredo Gonzalez** - Buro Happold, UK (Leveraging) Property Analytics for a better Nat Cat Risk Management **Amaryllis Mouyiannou** - Swiss Re, Switzerland
12:30-14:30	*Lunch*
14:30	**Session 6** *Keynote Lecture:* Seismic Design of Tall Buildings - Past, Present, Future **Farzad Naeim** - University of Southern California
15:45	Overview on World Conference in Earthquake Engineering, Milan, 2024
16:00	**Graduation Ceremony**