

### PhD NEWSLETTER

#### **PHD AWARDS**

A fresh Ph.D. laureate and a Ph.D. student of the Ph.D. program in Structural, Seismic and Geotechnical Engineering have been awarded two prestigious prizes at two different important international conferences.

Luca Capacci, 2020 PhD laureate and current Junior Assistant Professor (RTDA) at the Department of Civil and Environmental Engineering, has been awarded the 17WCEE Early Career and Student Award. The prize was presented on the closing ceremony of the 17th World Conference on Earthquake Engineering in Sendai (Japan), organized every four years under the auspices of the International Association of Earthquake Engineering and gathering about 3000 papers from over 70 countries. The award was presented to attending students and early career academics or professionals who submitted highquality papers. Luca Capacci is the only Italian researcher receiving this honor.

Alessandro Marengo, a Ph.D. student at the last year of his Ph.D. curriculum, has been awarded the Bureau Prize of the International Union of Theoretical and Applied Mechanics, for the best paper and presentation, in the category Solid Mechanics, at the recent World Congress of Theoretical and Applied Mechanics, ICTAM2020+1, Milano, in August 2021, an event held every four years. The prize was presented to him on the occasion of the closing ceremony of the Congress. Due to the covid pandemic, the congress was held online, gathering about 1500 participants from 60 countries, out of the more than three thousand who initially registered for the version in presence. The prize is addressed to congress presenters not older than 35 years of age at the time of the Congress.



Luca Capacci presented a paper titled *Damage Disaggregation for Seismic Resilience Assessment of Aging Bridge Networks* 

A probabilistic framework is proposed to investigate predominant damage scenarios of aging reinforced concrete bridges with respect to resilience-based time-variant seismic risk metrics. This framework is informing the decision-making process of public authorities for life-cycle-oriented maintenance and management of critical infrastructures. The paper is co-authored by Prof. Fabio Biondini (Politecnico di Milano) and Prof. Anne S. Kiremidjian (Stanford University).



Alessandro Marengo, presented a paper titled A Robust Explicit Algorithm for the Phase-Field Modeling of Quasi-Brittle Fracture

The phase-field model is a variational formulation of smeared brittle fracture. A key feature of the damage-like variable is the irreversibility constraint, accounting for the dissipative nature of the thermodynamic process. The proposed algorithm enforces rigorously and efficiently this constraint. The Figure on the right shows a mode-II crack propagation in a square notched specimen.





### **CALLS AND EVENTS**



## KICK-OFF MEETING WITH THE NEW PHD CANDIDATES (37TH CYCLE) – URBAN PLANNING, DESIGN AND POLICY AWARD 2022

9:30 – discussion with the author Marco Cremaschi of the volume "Culture and Policy-Making: Pluralism, Performativity, and Semiotic Capital"

11:30 – presentation of the PhD program and of the new research proposals by the PhD candidates, 37th cycle

14:30 – presentation by the PhD candidates, 36th cycle, on the results of the workshop "Territorial Fragilities in Cyprus: Planning and Preservation Strategies"

3<sup>rd</sup> November - 9:30 -16:00 Auditorium venue, 53 Pascoli street





## ASPEN INSTITUTE ITALY AWARD FOR RESEARCH COLLABORATION BETWEEN ITALY AND THE US

Aspen Institute Italia issues the 7th "Award for scientific research and collaboration between Italy and the United States", to be assigned in 2022. The Award consists of a monetary prize of EUR 40,000 gross for the research contribution judged to be the winning entry.

Deadline: 18:00 CET (Central European Time) on January 31, 2022





### NEW SCHOLARSHIP OPPORTUNITY FOR PHDS & POST-DOCS AT RWTH AACHEN UNIVERSITY

RWTH Aachen University is still accepting applications for scholarship program AROP which can be used to fund research stays for PhD students and Post-Docs at RWTH Aachen University. The "Advanced Research Opportunities Program" offers a travel grant of 1.000€ (lump sum) and a monthly stipend of 1.800€ for a period of up to 6 months.

The goal of the program is to strengthen and intensify bilateral relations between RWTH Aachen University and international universities and research institutions of strategic relevance. Among other purposes, the research stays may be used to prepare joint research projects and publications, initiate joint projects in the field of capacity building, develop teaching projects at the partner university, and organize future visits and student exchange programs.

More information on the program can be found **here** 



#### SEMINARS AND WORKSHOPS



#### RESILIENCE TRAINING OPPORTUNITY

Resilience is key in the path towards a Sustainable Development worldwide. Once again this year <u>Enel Foundation</u> offers training opportunities for MBA and PhD candidates from Politecnico di Milano on resilience related themes, with a specific focus on strategic, scientific and operational issues. Speakers will be Christian Zulberti (Deputy Director Enel Foundation), Paola Mercogliano (Senior Scientist at <u>Euro-Mediterranean Center on Climate Change</u>) and Giovanni Valtorta (Head of Network Design, Construction and Standardization - <u>e-distribuzione</u>).

See all the details on the **program (PDF)** 

Thursday, November 25th 2021, 3:30 pm – 4:30 pm



#### STARTING COURSES – DOCTORAL PROGRAMMES

#### PHD IN INFORMATION TECHNOLOGY

# IT PERSPECTIVE ON BUSINESS PROCESS MANAGEMENT Prof. Pierluigi Plebani

One of the main goals of Business Process Management (BPM) is to reduce the gap between the definition and modeling of business processes, as seen by the organization managers, and their execution, as implemented by the available ICT solutions. This course will consider the latter, i.e., the importance of business process management according to the computer science standpoint.

The course is organized as a mix of lectures and hands-on sessions to consider the whole life-cycle of a business process: from the identification, to design, enactment and validation.

From  $15^{th}$  November to  $2^{nd}$  December 2021

