



UNIVERSITÀ  
DI PISA



Technische  
Universität  
Braunschweig



UNIVERSITÀ  
DEGLI STUDI  
FIRENZE

INTERNATIONAL PHD SCHOOL IN CIVIL & ENVIRONMENTAL ENGINEERING

# 41<sup>th</sup> PLENARY MEETING

PISA, 20<sup>TH</sup>- 22<sup>ND</sup> JUNE 2022

UNIVERSITA' DEGLI STUDI DI PISA - POLO DIDATTICO PIAGGE  
AULA N2 - VIA MATTEOTTI 11 - PISA

## WEBEX MEETINGS:

**FOR 20TH JUNE:** Meeting number: 2741 673 0415 - Password: MCjVX8pCx93

<https://unifirenze.webex.com/unifirenze/j.php?MTID=m960cb66a42608e471a89196f47818295>

**FOR 21ST JUNE:** Meeting number: 2744 151 8459 - Password: bnK67bnqKj7

<https://unifirenze.webex.com/unifirenze/j.php?MTID=m8597729efc1f9313812449935a3569c8>

**FOR 22ND JUNE:** Meeting number: 2741 288 6604 - Password: XUeVuTtj235

<https://unifirenze.webex.com/unifirenze/j.php?MTID=mdd258364ae149d95fb4fe75146881005>

In cooperation with:



NTNU – Trondheim  
Norwegian University of  
Science and Technology

**INSA**

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ET MÉTIERS**  
ParisTech



TECHNISCHE  
UNIVERSITÄT  
DARMSTADT



# MONDAY JUNE 20<sup>TH</sup>

LINK WEBEX: [HTTPS://UNIFIRENZE.WEBEX.COM/UNIFIRENZE/J.PHP?MTID=M960CB66A42608E471A89196F47818295](https://unifirenze.webex.com/unifirenze/j.php?mtid=M960CB66A42608E471A89196F47818295)

## 09:00 Opening of the meeting

*Chair: Luca Solari, Massimo Losa and Klaus Thiele*

## 09:30 Examination Niccolò Barni

XXXIV Cycle - Co-tutelle with Norwegian University of Science and Technology Trondheim – Norway

“Nonlinear buffeting response of suspension bridges considering time-variant self-excited forces”

Supervisors: **Claudio Mannini** Unifi, **Massimiliano Giofrè** Unipg, **Ole Andre Øiseth** NTNU

*11:00 Private Committee Meeting*

## 11:00 Examination Benedetta Pagliaccia

XXXIV Cycle - Co-tutelle with INSA Toulouse - France

“Insights on the recovery, characterization and valorization of Extracellular Polymeric substances (EPS) from granular sludge applied in innovative wastewater treatment systems”

Supervisors: **Claudio Lubello** and **Tommaso Lotti** Unifi, **Etienne Paul** and **Yolaine Bessiere** INSA Toulouse

*12:30 Private Committee Meeting*

## 12:30 Presentations by enrolled students

*Chair: Luca Salvatori*

- **Alessandro Mei**

XXXV cycle - Joint title with TU Braunschweig - Germany (15 min)

- **Carlo Vienni**

XXXV cycle - Joint title with TU Braunschweig - Germany (15 min)

- **Andrea Geppetti**

XXXV Cycle - Co-tutelle with RUHR-Universität Bochum - Germany (15 min)

- **Melissa Fabiola Yozy Kepdib**

XXXVII cycle (5 min)

### **13:30-14:30 Lunch Break**

### **14:30 Examination Giulio Ferri**

XXXIV Cycle - Co-tutelle with RUHR-Universität Bochum - Germany

“Platform and moorings optimization procedures for large Floating Offshore Wind Turbines”

Supervisors: **Claudio Borri** and **Enzo Marino** Unifi, **Ruedrigger Hoeffler** RUB

16:00 Private Committee Meeting

### **16:00 Examination Gemma Mannarino**

XXXIV Cycle - Co-tutelle with Universidad Autonoma de Madrid - Spain

“Application of hydrothermal carbonization for sewage sludge and food waste valorization”

Supervisors: **Riccardo Gori** Unifi, **Angel Fernandez Mohedano** UAM

17:30 Private Committee Meeting

### **17:30 Presentations by enrolled students**

*Chair: Enzo Marino*

- **Neri Banti**

XXXVI cycle - Co-tutelle with Bialystock Technical University (10 min)

- **Mathias Helhe**

XXXVII cycle - Visiting PhD Student from TU Braunschweig (5 min)

- **Fernando J. Ávila Cruces**

XXXV cycle - Visiting PhD Student from Universidad de Granada (15 min)

- **Gerardo Arcangelo Pacillo**

XXXVI cycle - Joint title with TU Braunschweig - Germany (10 min)

- **Niccolò Bruschi**

XXXVI cycle - Joint title with TU Braunschweig - Germany (10 min)

- **Neyu Chen**

XXXVI cycle - Visiting PhD Student from Tongji University - China (10 min)

- **Fengying Wu**

XXXVII cycle - Visiting PhD Student from Tongji University - China (5 min)

- **Mahtab Shiravi**

XXXVII cycle (5 min)

- **Diego Ignesti**

XXXVII cycle - Co-tutelle with Universität der Bundeswehr München (5 min)

- **Hamid Kazemi Moghadam**

XXXVII cycle - Co-tutelle with Universität der Bundeswehr München (5 min)

**18:50 Proclamation Niccolò Barni, Benedetta Pagliaccia,  
Giulio Ferri, Gemma Mannarino**

*Chair: Claudio Lubello*

Live streaming on YouTube: <https://youtu.be/IztgiOgw1DE>

**19:15 End of the Meeting**



# TUESDAY 21<sup>ST</sup> JUNE

LINK WEBEX: [HTTPS://UNIFIRENZE.WEBEX.COM/UNIFIRENZE/J.PHP?MTID=M8597729EFC1F9313812449935A3569C8](https://unifirenze.webex.com/unifirenze/j.php?MTID=M8597729EFC1F9313812449935A3569C8)

## 09:00 Examination Francesco Barsi

XXXIV Cycle - Co-tutelle with Université Paris Est - France

“Safety assessment of non-axisymmetric masonry domes subjected to vertical and horizontal loads by limit analysis methods”

Supervisors: **Stefano Bennati** and **Riccardo Barsotti** Unipi, **Thierry Ciblac** ENSAPM

*10:30 Private Committee Meeting*

## 10:30 Examination Paolo Filippucci

XXXIV Cycle - Co-tutelle with Technical University Wien - Austria

“High-resolution remote sensing for rainfall and river discharge estimation”

Supervisors: **Carla Saltalippi** Unipg, **Wolfgang Wagner** TU Wien

*12:00 Private Committee Meeting*

## 12:00 Examination Michela Torti

XXXIV Cycle - Joint title with TU Braunschweig – Germany

“Life cycle cost analysis of road bridges equipped with structural health monitoring systems”

Supervisors: **Filippo Ubertini** and **Ilaria Venanzi** Unipg, **Martin Empelmann** and **Sara Javidmehr** TU Braunschweig

*13:30 Private Committee Meeting*

## 13:30-14:30 Lunch Break

## 14:30 Examination Sara Modanesi

XXXIV Cycle - Co-tutelle with KU Leuven – Belgium

“Innovative Use of Earth Observation and Land Surface Modeling for Tracking the Effects of Irrigation on the Terrestrial Water Cycle”

Supervisors: **Renato Morbidelli** Unipg, **Gabrielle De Lannoy** and **Michel Bechtold** KU Leuven

*16:00 Private Committee Meeting*

## 16:00 Examination Valeria Croce

XXXIV Cycle - Co-tutelle with ENSAM ParisTech Aix-en-Provence – France

“Semantic annotation transfer and retrieval for architectural heritage. A methodological system combining Artificial Intelligence, H-BIM and collaborative reality-based annotation platforms.”

Supervisors: **Gabriella Caroti** Unipi, **Philippe Veron** ENSAM Paris-Tech

17:30 Private Committee Meeting

## 17:30 Presentations by enrolled students

*Chair: Silvia Caprili*

- **Daman Mohsen**

XXXVI cycle - Co-tutelle with NUI Galway - Ireland (10 min)

- **Mohammadreza Mohaseb Karimlou**

XXXVII cycle (5 min)

- **Gonzalo De Léon**

XXXV Cycle - Co-tutelle with Université de Nantes - France (15 min)

- **Lorenzo Brocchini**

XXXVII cycle (5 min)

- **Antonella Cosentino**

XXXV cycle - Co-tutelle with Gent University - Belgium (15 min)

- **Isabella Mazzatura**

XXXVI cycle - Co-tutelle with Universitat Politècnica de Catalunya (10 min)

- **Simone Celati**

XXXVII cycle - Co-tutelle with Universitat Politècnica de Catalunya (5 min)

- **Federica Del Carlo**

XXXVII cycle - Co-tutelle with Universitat Politècnica de Catalunya (5 min)

## 18:45 Proclamation Francesco Barsi, Paolo Filippucci, Michela Torti, Sara Modanesi, Valeria Croce

*Chair: Carla Saltalippi*

Live streaming on YouTube: <https://youtu.be/sQYM30O2LaI>

**19:15 End of the Meeting**





# WEDNESDAY 22<sup>ND</sup> JUNE

LINK WEBEX: [HTTPS://UNIFIRENZE.WEBEX.COM/UNIFIRENZE/J.PHP?MTID=MDD258364AE149D95FB4FE75146881005](https://unifirenze.webex.com/unifirenze/j.php?mtid=MDD258364AE149D95FB4FE75146881005)

## 09:15 Examination **Andrea Paliotto**

XXXIV Cycle - Co-tutelle with Technical University of Darmstadt – Germany  
“Development of a Human Factors Evaluation Procedure for Network-wide Road Safety Assessments”

Supervisors: **Lorenzo Domenichini** and **Francesca La Torre** Unifi, **J. Stefan Bald**  
**TU Darmstadt**

*10:30 Private Committee Meeting*

## 10:45 Presentations by enrolled students

*Chair: Lorenzo Cappietti*

- **Giada Artini**

XXXV Cycle - Joint title with TU Braunschweig - Germany (15 min)

- **Mirco Mancini**

XXXVII cycle (5 min)

- **Daniele Martuscelli**

XXXVII cycle – Co-tutelle with University of Copenhagen – Danmark (5 min)

- **Zihan Liu**

XXXVI cycle - Joint title with TU Braunschweig - Germany (10 min)

- **Marco De Simone**

XXXVII cycle (5 min)

- **Jerome El Jeitany**

XXXVII cycle (5 min)

## 11:30 Examination **Nicholas Fiorentini**

XXXIV Cycle - Joint title with TU Braunschweig - Germany

“Intelligent solutions for supporting decision-making processes in road management: A general framework accounting for environment, road serviceability, and user’s safety”

Supervisors: **Massimo Losa** Unipi, **Markus Gerke** TU Braunschweig

*13:00 Private Committee Meeting*

**13:00-14:30 Lunch Break**

## 14:30 Presentations by enrolled students

*Chair: Andrea Masiero*

- **Eugenio Pellis**

XXXV Cycle - Co-tutelle with Université de Strasbourg - France (15 min)

- **Irene Cortesi**

XXXVI Cycle - Co-tutelle with TU Wien - Austria (10 min)

- **Riccardo Angelini**

XXXVII cycle -Co-tutelle with Universitat Politècnica de Catalunya (5 min)

- **Francesca Marafini**

XXXVII cycle (5 min)

- **Federico Matteuzzi**

XXXVII cycle (5 min)

- **Alessandro Bruttini**

XXXVI cycle - Co-tutelle with RUHR-Universität Bochum - Germany (10 min)

- **Tommaso Sorbi**

XXXVI cycle - Co-tutelle with Teesside University - UK (10 min)

## 15:30 Presentations by enrolled students

*Chair: Riccardo Gori*

- **Giorgia Notari**

XXXVII cycle - Co-tutelle with Universitat Autònoma de Barcelona – Spain (5 min)

- **Jan Pietro Czellnik**

XXXVII cycle (5 min)

- **Stefano Fiaschi**

XXXVII cycle (5 min)

- **Stefano Dugheri**

XXXVII cycle - University of Silesia in Katowice – Poland (5 min)

- **Francesca Tuci**

XXXVII cycle - Co-tutelle with Universitat Politècnica de Catalunya (5 min)

- **Serena Falcioni**

XXXVII cycle - Co-tutelle with Universitat Autònoma de Barcelona – Spain (5 min)

- **Alex Ricoveri**

XXXVII cycle - Co-tutelle with Universitat Autònoma de Barcelona – Spain (5 min)

## 16:15 Proclamation Andrea Paliotto and Nicholas Fiorentini

*Chair: Massimo Losa*

Live streaming on YouTube: <https://youtu.be/SHhtUYL3pN0>

## 16:30 End of the Meeting