

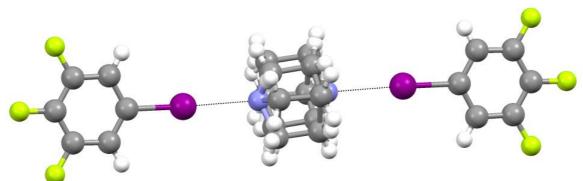
PhD NEWSLETTER

Best PhD Thesis Prize 2018 – Italian Association of Crystallography (AIC)

The AIC Best PhD Thesis Prize 2018 has been awarded to Dr. Luca Catalano, who recently concluded his doctoral studies at the Politecnico di Milano under the supervision of Professor Pierangelo Metrangolo at Department of Chemistry, Materials and Chemical Engineering "Giulio Natta".

This prestigious Prize is awarded every year and it has the goal to recognize the excellence in crystallographic research achieved by young researchers, during their PhD.

Dr. Catalano's thesis is titled "Towards engineering of solid-state supramolecular rotors *via* halogen bonding" and it introduces a new strategy for the synthesis of advanced molecular materials. The project fully embraces the spirit of Politecnico PhD Programme in *Industrial Chemistry and Chemical Engineering*, whose primary goal is to shape and to educate research-driven citizens aiming to develop and rationalize new products, services and technologies.



One of the supramolecular rotors developed at the Politecnico

Catalano's PhD was devoted to the study of intermolecular interactions in organic crystals, with focus on halogen bond. His research had the twofold goal:

- 1) The development of new analytical methods for the characterization of supramolecular crystals.
- 2) The synthesis and characterization of solid-state supramolecular machines based on halogen bonding.

This latter research line brought Luca Catalano to spend six months in the U.S.A. working with Prof. Miguel Garcia-Garibay, world expert in the field, at University of California Los Angeles (UCLA). The quality of his research has been recognized by several prizes, three Poster Prizes at international conferences and the Special Mention of the *Italian Chemical Society* (SCI) for the best scientific dissemination as a finalist of the prestigious *Primo Levi Prize 2015*. His results were published on high-impact scientific journals, such as *The Journal of the American Chemical Society* and *Nature Communications*.

After obtaining his PhD *cum laude* in late February 2017, he continued his research at the Politecnico until October, before moving to the United Arab Emirates as Post-Doctoral Associate at New York University Abu Dhabi Campus, working with Prof. Panče Naumov on new organic crystalline materials with exotic properties, such as photoactive compounds, plastically and elastically bendable crystals and actuators.



Call and events

SISCODE PROJECT KICK-OFF MEETING - 3 MAY 2018

The SISCODE (Society in Science and Innovation through CO-DEsign) research project has been recently funded under the H2020-SwafS Programme. SwafS means <u>Science with and for Society</u> and its aim is to empower the links between Research and innovation (R&I) systems and their stakeholders.

The kick-off meeting of SISCODE project will give an overview of the current status of *Responsible Research and Innovation* (RRI) in Europe and will discuss the opportunities and challenges of its practices.

May 3rd, from 9:30 to 12:30, at Polifactory, B3 Building, via Candiani 72, Milano Bovisa (Design Campus)



Important! THE 2018 PHD CALL IS OPEN! Spread the news

Politecnico di Milano has issued the call for PhD positions, starting their career in November 2017, for candidates earning their second-level degree by October 31st, 2017. Access to Ph.D. Programmes is by selection. The University selection call is issued annually for all Ph.D. Programmes, and is viewable at the link www.phd-admission.polimi.it All active PhD Programmes will offer positions in the call.

Deadline for application: May 21st 2018 at 2 PM (Italian time)



FIVE IDEA LEAGUE SUMMER SCHOOLS

IDEA League is a focused network of leading European universities of Science and Technology. Its members are TU Delft, RWTH Aachen, ETH Zurich, Chalmers University and Politecnico di Milano. This year, the League offers the students of the network the unique opportunity to develop new insights into current research and to enhance their skills and academic excellence. Application to the following "schools" is open:

- EMPOWERING IMAGINATION
 - Politecnico di Milano, Lecco Campus, Sept 3rd –7th, 2018 (S.Chiodo and V.Schiaffonati)
- ASSESSING AND REDUCING SOCIETY'S ENVIRONMENTAL FOOTPRINT

ETH Zurich in Filzbach (Switzerland), Sept 3rd –7th, 2018.

- ETHICS OF NEW BIOTECHNOLOGIES
 - TU Delft in Delft (The Netherlands), Aug 27th 31st, 2018.
- SMART CITIES
 - Nanyang Technological University (Singapore) in Singapore, July 9th 13th, 2018.
- FUTURE URBAN MOBILITY
 - RWTH Aachen in Aachen (Germany), Sept 17th 21st, 2018.

The League will cover registration and living costs of Master students and PhD candidates from the five associated Universities: selected students only have to pay for their own travel cost (the PhD research endowment of every PhD Candidate may be used to cover travel costs). It is possible to apply to more than one Summer School, though only one School will be assigned. For more information please follow the given links and read the FAQ here.

Deadline for application: May 4th at noon



OPEN DAY OF THE PHD PROGRAM IN INFORMATION TECHNOLOGY

Prof. Andrea Bonarini, coordinator of the PhD Program, will meet the students interested to enroll in DEIB PhD: he will explain the procedures for admission and the activities during the 3 year course, the employment after PhD Degree and the DEIB research areas.

May 4th, 2018, DEIB - Beta Room, Building 24, via Golgi 40, Milano



2018 CONFERRAL OF DOCTORAL DEGREES

Every year, the PhD School confer Doctoral Degrees in an official Diploma Ceremony, during which few invited speakers, among which some ex-PhD Candidates report their post-doctoral experience. This year, *Elvina Finzi*, PhD in Radiation Science and Technology, and *Vincenzo Manzoni*, PhD in Information Technology, will give their speech with *Salvatore Settis* and *Enrico Zio*.

Tuesday, May 15th, 9h00, Piazza Leonardo da Vinci, Milano



CAREER DAY – 15 MAY 2018

The job fair for Politecnico di Milano students and graduates, awaits you. It is a valuable opportunity to:

- Speak in person to managers and HR professionals from 130 companies
- Understand which companies are hiring and the skills they are looking for
- Apply directly for open positions (jobs and internships)
- Get information about job contracts, career paths and hiring schemes.

May 15th, from 9.30 AM to 5.30 PM, Bovisa Campus - Building BL27, via Lambruschini 4, Milano



ERASMUS+ FOR TRAINEESHIP 2018/2019 CALL

The *Erasmus+ for Traineeship* call for the academic year 2018/2019 will be issued by mid-May with a deadline by the end of May (approximately). You will receive an email about it, as soon as it is issued. PhD Candidates may ask <u>grants</u> for internship and research visit period (compatible with the scholarship increase for periods abroad) at an European company or Institution (including Universities).

STUDIO TORTA PRIZE

Studio Torta issues a prize for thesis on Intellectual Property. Check the <u>Call</u> and <u>Application form</u> (in Italian only)

Deadline for application: September 30th



IEEE ITALY SECTION ABB AWARDS 2018

The IEEE Italy Section issues the first call of the Awards on New Challenges for Energy and Industry thanks to the financial sponsor of one of the major players of the electric power industry, such as ABB. Two Awards have been established for 2018:

- the IEEE Italy Section ABB 2018 Master Thesis Award
- the IEEE Italy Section ABB 2018 Phd Thesis Award



Seminars and Workshops

TEMPO: NATURA E DIREZIONE

Detailed Program (Italian only). The session is free but an on-line registration is required (see the Online Form).

May 4th, 9h30-13h00 – DEIB, Sala Conferenze "Emilio Gatti" (Via Ponzio 34/5, Milano)



NOVEL APPROACH FOR SLUDGE CHARACTERIZATION: RHEOLOGICAL TESTING

Prof. Azize Ayol / Prof. Roberto Canziani

The new rheological analysis techniques, the different rheometers and sensors with different geometries will be talked regarding the practical applications

Friday, June 6th, 10 AM – 1 PM; Aula Bianca, Building 21, 6th floor



FATE AND REMOVAL OF MICROPOLLUTANTS IN WASTEWATER TREATMENT PLANTS

Prof. Juan Lema / Prof. Roberto Canziani

This 3-hour seminar will present the problem of emerging micropollutants in wastewater treatment, as well as remedial techniques

Wednesday, June 13th, 10 AM − 1 PM; Aula Bianca, Building 21, 6th floor 🞾 🕼



SUMMER SCHOOL ON WORKPLACE MANAGEMENT - SSWM 2018

Prof. Andrea Ciaramella

2-week course aimed at training students, practictioners and researchers to manage interdisciplinary projects on workplace change.

Mon 9 - Fri 20 July, 2018



Starting courses - PhD School

INDUSTRIAL SKILLS

Prof. Paolo Biscari

Develop and exploit in the young PhD students a system of skills development and innovation management in industrial and service companies.

From May 21st to May 31st, 2018



SCIENTIFIC COMMUNICATION IN ENGLISH

Prof. Paolo Biscari, Prof. Sluckin Timothy Jan

The aim of the course is to develop and improve the candidates' scientific writing, as well as increase their ability to deliver scientific and technical presentations in English.

From May 21st, to June 15th, 2018



Starting courses – Doctoral Programmes

PhD in Architecture, Built Environment and Construction Engineering

FUNDAMENTALS OF PARAMETRIC MODELLING

Proff. Maurizio Vianello (DMAT), Luigi Cocchiarella (DAStU), Ingrid Paoletti (DABC)

This multidisciplinary course, whose complete title include "FROM ARCHITECTURAL GEOMETRY TO THE DESIGN OF ARCHITECTURAL FORMS AND THEIR FUNCTIONS", deals with the main advancements in "Architectural Geometry" and aims twofold to lay the foundation for an advanced use of modelling tools (in the so-called "digital practice") and to represent the main research lines about their use in the design phases, in the analysis of the built environment and their transformations, and in the management of the (digital) manufacturing and on site construction activities.

Lectures from May 2nd to 25th



DESIGN/MEMORY/INVENTION

Proff. Francesca Bonfante, Nora Lombardini, Cristina Pallini

Starting from future challenges as put forth by Horizon 2020, this course will examine a series of exemplary projects which "pushed forward" the conception of new technical solutions, new spatial frameworks and new expressive forms, while addressing the theme of memory, in search of reference values and a critical approach. PhD students will be asked to analyze the past and related memories, clarifying which criteria can be adopted in view of understanding how to preserve the authenticity of any tangible/intangible evidence.

Lectures from May 8th to 25th





ARCHITECTURE AS CONCEIVED AND BUILT

Proff. Cristina Pallini, Francisco Casal Ribeiro

The course deals with Architecture at the crossroads between art and science, identifying its domain in a series of projects, examined from initial conceptualisation to final implementation in their respective contexts, to ponder the degree of consistency gauging each design stage. The notion of (re)reading time and space through occasion will be a constant topic of the course, along with a number of recurring themes and terms of reference marking the transition from the "modern past" to the present time. The main aim is to focus on how contemporary architecture may express a coherent narrative while providing a synthesis between spatial composition, structural engineering, technology and design.

Lectures from May 14th to June 1st





LOW CARBON DISTRICT IN URBAN REGENERATION PROCESSES

Proff. Paola Caputo, Giuliano Dall'O

The course provides method and tools able to support the design of low carbon communities in the framework of urban regeneration processes. The following main topics are presented and discussed: Building physics, Renewable integration in existing buildings, Urban metabolism, Comfort in open and closed areas, GIS for managing energy data, Real cases of urban/district regeneration.

Lectures from May 21st to 25th





PhD in Design

TOOLS FOR RESEARCH IN DESIGN

Prof. Lucia Rosa Elena Rampino

The course intend to give the student the ability to identify - starting from their research topic - a channel of appropriate funding. Therefore the lessons deal with the following subjects: strategic planning of research, national and international channels of financing, strategic areas for the design, most promising fields, identification of emerging areas.

May 22nd, 9h15 Room Rossa (4° floor Department Design-Via Durando 38/A)



PhD in Environmental and Infrastructure Engineering

ENVIRONMENTAL REACTORS AND BIOLOGICAL PROCESSES APPLIED TO ENVIRONMENTAL-SANITARY ENGINEERING

Prof. Roberto Canziani

The Course will provide deep insights about reactors and processes used to remove pollutants from water and wastewater.

Lectures will start on June 11th, 2018





PhD in *Physics*

TECHNIQUES FOR OPTICAL CHARACTERIZATION OF MATTER

Prof. Cristian Manzoni (Istituto di Fotonica e Nanotecnologie – CNR)

Optical characterization techniques explore the changes of light waves after their interaction with matter, giving access to some physical properties of the system.

Lectures will be given every Wednesday, at 9 to 12 am, from May 16 to June 27



