

Alta Scuola Politecnica

9th cycle - Spring School 2014

# Global Change and Sustainability

May,  $6th - 9^{th}$ Belgirate (VB)

Coordinators Barbara Betti, Stefano Consonni and Marino Gatto

## Tuesday, May 6th

11:15 – 11:30 Introduction to the course

Marino Gatto, Politecnico di Milano, Dept. of Electronics, Information and Bioengineering

11:30 – 12:15 Sustainability: concepts and problems

Marino Gatto, Politecnico di Milano, Dept. of Electronics, Information and Bioengineering

12:15 – 13:30 Fundamentals of global climate change

Marcello Vichi, Euro-Mediterranean Centre for Climate Change, Bologna

13:30 Lunch

15:00 – 16:15 Water as a global resource

Andrea Castelletti, Politecnico di Milano, Dept. of Electronics, Information and Bioengineering

16:15 – 17:30 Global change, ecosystem vulnerabilities and feedback

Franco Miglietta, National Research Council (CNR), Institute of Biometeorology

17:45 – 19:00 Energy availability and production and energy policies

Stefano Consonni, Politecnico di Milano, Dept. of Energy

#### Wednesday, May 7<sup>th</sup>

09:00 – 10:15 Global demographic problems

Graziella Caselli, Sapienza University of Rome, Dept. of Statistical Sciences

10:15 – 11:30 Sustainable mobility

Marco Ponti, Politecnico di Milano, Dept. of Architecture and Urban Studies

11:40 – 13:00 Working Groups presentation

13:00 Lunch

14:30 – 18:30 Diseases at the global scale [Working Group Millennium

Problems 1]

Renato Casagrandi, PoliMI, Dept. of Electronics, Information and Bioengineering

Sustainability indices [Working Group Millennium Problems 2]

Giorgio Guariso, Politecnico di Milano, Dept. of Electronics, Information and Bioengineering

Food availability [Working Group Millennium Problems 3]

Lorenzo Genesio, National Research Council (CNR), Institute of Biometeorology, Firenze

Ocean sustainability [Working Group Millennium Problems 4]

Giulio De Leo, Stanford University, Hopkins Marine Station

Hotel Villa Carlotta Via Mazzini 121/125 28832 Belgirate (VB)

Course Plenary Sessions

Room 'Camelie & Azalee' (ground floor)

USB Event
Room 'Tigli & Quercie'
(first floor)

## Thursday, May 8th

09:00 – 10:15 Vehicles technology and design

Stefano Re Fiorentin, Asja Board.

10:15 – 11:30 Economics of global change

Marzio Galeotti, Università degli Studi di Milano, Dept. of Economics, Business and Statistics

11:40 – 13:00 Working Groups presentation

13:00 Lunch

14:00 – 18:00 Life cycle assessment [Working Group Toward Sustainable

#### Practices 1]

Giovanni Dotelli, Politecnico di Milano, Dept. of Chemistry, Materials and Chemical Engineering

Paco Melià, Politecnico di Milano, Dept. of Electronics, Information and Bioengineering

Renewable energy [Working Group Toward Sustainable Practices 2]

Stefano Consonni, Politecnico di Milano, Dept. of Energy

Design for sustainability [Working Group Toward Sustainable Practices 3]

Silvia Barbero, Politecnico di Torino, Dept. of Architecture and Design

Sustainable architecture [Working Group Toward Sustainable Practices 4]

Giovanni Scudo, Politecnico di Milano, Dept. of Architecture and Urban Studies

18:00 UBS Event

### Friday, May 9th

08:30 – 09:45 Energy saving in buildings

Marco Masoero, Politecnico di Torino, Dept. of Energy

09:45 – 10:45 **The PolyGame – Introduction** 

Massimo Tavoni, Politecnico di Milano, Dept. of Management, Economics and Industrial Engineering

11:00 – 13:00 The PolyGame: Finding Sustainability Policies

Renato Casagrandi, PoliMI, Dept. of Electronics, Information and Bioengineering

Stefano Caserini, PoliMI, Dept of Civil and Environmental Engineering Stefano Consonni and Emanuele Martelli, Politecnico di Milano, Dept. of Energy

Giulia Fiorese, Joint Research Centre, European Commission

13:00 Lunch

14.30 – 15:30 The PolyGame: Finding Sustainability Policies

Renato Casagrandi, PoliMI, Dept. of Electronics, Information and Bioengineering

Stefano Caserini, PoliMI, Dept of Civil and Environmental Engineering Stefano Consonni and Emanuele Martelli, Politecnico di Milano, Dept. of Energy

Giulia Fiorese, Joint Research Centre, European Commission

15:30 – 16:30 **PolyGame wrap up** 

16:30 – 17:00 **Final Discussion**