





Climate change and its impact on agricultural systems is one of the most pressing issues humanity is facing nowadays. With a rapidly growing population and decreasing resources, it is essential to identify state of the art tools to understand and predict climate change, assess its impact on ecosystems and devise adaptation and mitigation options.

# **Objectives**

The main objective of the Fall School is to provide doctoral and post doctoral students and professionals a broad and updated discussion of themes and methodologies to assess the impact of climate change on agriculture and water resources, considering different scales, from field to regional. In addition, the School will focus on the identification and evaluation of adaptation strategies, with regards also on food security threats.

The use of modeling software, with particular emphasis on crop simulation models applied to determine the potential impacts of climate change on crop production and the evaluation of changes in crop and water management will be a central part of the School. Lectures on economic issues will complement other topics by integrating the economic investigation with the physical assessment.

The Fall School, coordinated by Prof. Donatella Spano, is an initiative of IAFENT (Impacts on Agriculture, Forest and Natural Ecosystems), a division of the Euro Mediterranean Centre on Climatic Change (CMCC).

Other divisions of CMCC cooperating in the Fall School are: CIP (Climate Impacts and Policies. An Economic Assessment), ANS (Numerical Applications and Scenarios), and ISC (Impacts on Soil and Coast).

## **Main Topics**

The following topics will be covered and laboratory sessions will be held in conjunction with lectures.

- (i) Climate modeling and downscaling techniques;
- (ii) Models and tools for the assessment of climate change impacts on agriculture and evaluation of changes in crop management as adaptation/mitigation strategies;
- (iii) Socio-economic issues.

# **Course Organization**

The school will be held in Alghero (Sardinia, Italy) over the period November 5-9 2012, with morning session lectures, afternoon laboratory activities and evening sessions dedicated to poster sessions, working group, and discussion.

## **Participation**

The school will be limited to 20 participants.

Applications are open to doctoral and post-doctoral students and professionals in environmental and economic resources. Long standing and relevant experience (>3 years) can substitute the PhD degree. Admission is based on selection and successful participants will be notified by **September 15, 2012**.

Adequate knowledge of English is a requirement.

## **Applications**

Application forms are available at:

 $\frac{http://www.cmcc.it/training-programs/summer-and-winter-schools/modelling-climate-change-impacts-on-water-and-crops-at-different-scales$ 

Candidates should send the completed application form, together with detailed curriculum vitae to:

gavkyr15@gmail.com and vmereu@uniss.it

## **Deadline for Applications**

The deadline for submission of applications is **10 September 2012**. Applications received after this date will not be considered.

## **Scientific Committee**

Prof. Donatella Spano Prof. Riccardo Valentini
University of Sassari (Italy) University of Tuscia, Viterbo
CMCC – IAFENT Sassari (Italy) CMCC – IAFENT Viterbo (Italy)

Dr. Valentina Mereu Dr. Serena Marras University of Sassari University of Sassari

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#### **Contacts**

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#### List of Lecturers

#### Francesco Bosello

CMCC – Climate Impacts and Policies. An Economic Assessment (CIP), Venezia (Italy) DEEM-Department of Economics, Management and Quantitative Methods, University of Milan (Italy) FEEM - Fondazione Eni Enrico Mattei, Milan (Italy)

### Edoardo Bucchignani

CMCC – Impacts on Soil and Coast (ISC), Capua (Italy) CIRA - Centro Italiano Ricerche Aerospaziali, Capua (Italy)

### Tony Hunt (tbc)

Department of Plant Agriculture, University of Guelph, Ontario, Canada

#### Jon I. Lizaso

Dpto. Producción Vegetal. Fitotecnia ETS Ingenieros Agrónomos, Universidad Politécnica de Madrid

#### Valentina Mereu

CMCC - Impacts on Agriculture, Forest, and Natural Ecosystems (IAFENT), Sassari (Italy)

DipNET - Department of Science for Nature and Environmental Resources, University of Sassari (Italy)

#### **Monia Santini**

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#### **Enrico Scoccimarro**

CMCC - Climate Services Division (SERC), Bologna (Italy) INGV - Istituto Nazionale di Geofisica e Vulcanologia, Bologna (Italy)

#### Richard L. Snyder

Department of Land, Air and Water resources – University of California, Davis

#### **Donatella Spano**

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