

SARDINIA SUMMER SCHOOL



uniss
UNIVERSITÀ DEGLI STUDI DI SASSARI



UniNuoro
Consorzio Universitario Nuoro

**MODELLING SUSTAINABLE FARMING SYSTEMS
UNDER CLIMATE CHANGE**

**NUORO, SARDINIA, ITALY
JULY 23-27, 2018**

SARDINIA SUMMER SCHOOL

July 23-27, 2018

Nuoro, Italy

www.uninuoro.it/summerschool

OBJECTIVES

Climate change is threatening agricultural productivity worldwide while world food demand is steadily increasing. Such global challenge is framed by UN sustainable development goals and calls for integrated approaches and quantitative tools for the risk assessment and the identification of viable options.

The summer school on “Modelling sustainable farming systems under climate change” is designed to enhance the capacities of students to design resilient and sustainable cropping systems through different modelling approaches at field and landscape scale. A central focus of the school is on the application of modelling tools such as EPIC, APEX and DSSAT to case studies on climate change risk assessment, and sustainable intensification through precision agriculture. A special

focus will be given to the management of long term soil fertility, hydrology, greenhouse gas emission mitigation and adaptive responses to climatic pressures, relying on specific case studies, to improve the participants' ability to critically understand the complex interactions between biophysical and social processes that characterize sustainable development in a context of climate change.

The scientific debate on this topic is of interest at the scientific community level including the IPCC (<https://www.ipcc.ch/>) as it is relevant for the proposed climate change mitigation policies.



LECTURERS

Giovanna SEDDAIU

*Associate professor, Università di Sassari
Sassari, IT*

Fabrizio Rossi

*Climate-KIC's education and capacity building for
innovation and Climate action
Bruxelles, BE*

Davide CAMMARANO, PhD

*Research Scientist, James Hutton Institute
Aberdeen, UK*

Luca DORO, PhD

*Research Scientist, Blackland Research
& Extension Center
Texas A&M University, Temple, Tx, USA*

Assistants

Antonio PULINA and Laura MULA

*Desertification Research Centre (NRD)
Department of Agricultural Sciences
(University of Sassari)
Sassari, IT*

Antonio GANGA

*Department of Agricultural Sciences
(University of Sassari)
Sassari, IT*





INFO PARTICIPATION ADMISSION AND SCHOLARSHIPS

The School is targeted to graduates, doctoral and post-doctoral students in environmental disciplines, agronomy, soil science, applied biology, natural resource management, landscape planning, environmental sciences from all over the world. Given the highly interactive activities planned at the Summer School, the number of participants is limited to 30.

Accepted applicants will be requested to pay a participation fee of EUR 150. The participation fee

includes downloadable course material and the participation diploma. Successful candidates will receive information about modes of payment once admitted to the School. All applicants can apply for a scholarship.





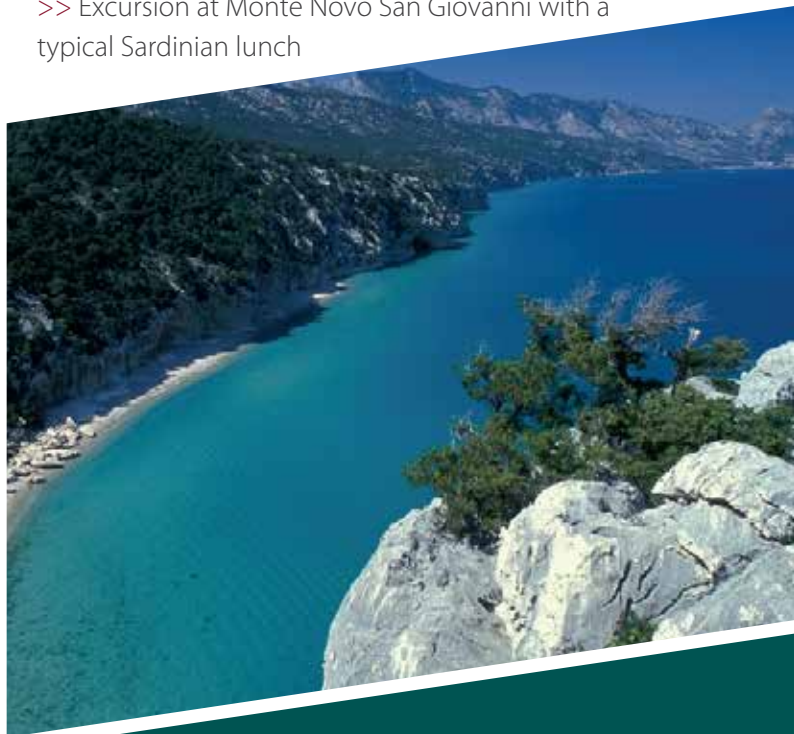
ACCOMMODATION

Summer School participants may take advantage of a special inclusive price of 350 Euros per person, for seven nights at a local 3-star hotel. This price covers accommodation in a double room together with half pension (breakfast and one meal per day). If you are interested in this offer, please note this in your enrolment e-mail. There is a surcharge of €20.00 per day for the single room at the hotel.

BENEFITS

In addition to tuition, downloadable course material and the participation diploma the course fee also covers the following:

- >> Free entry to the gym and swimming pool at Località Farcana – Monte Ortobene, Nuoro;
- >> Free entry to: MAN Nuoro Provincial Art Museum; ISRE Sardinian Ethnographic Museum; ISRE Birth place and museum Grazia Deledda (Nobel Prize for Literature, 1926);
- >> Free access to local transport.
- >> Transfer and B&B accommodation at the Montes Forest natural area (Orgosolo, central Sardinia).
- >> Excursion at Monte Novo San Giovanni with a typical Sardinian lunch



SCHOOL PROGRAMME

Introductory lectures

G. Seddaiu

>> Sustainable farming systems, climate change adaptation and mitigation

F. Rossi

>> Climate-KIC's education and capacity building for innovation and Climate action

Introduction to crop modelling

L. Doro

>> Modelling plant growth and soil-water-nutrient relationships
>> Structure of input and output files

The EPIC and APEX models for cropping system simulation at field and catchment scales

L. Doro

>> User interfaces
>> Design and creation of a "run"
>> Model calibration (use of available parameters)

Case studies

L. Doro

>> EPIC/APEX model applications to climate change risk assessment

Modelling spatial and temporal variability

D. Cammarano

>> Concepts of Spatial and Temporal variability and how to manage it
>> Factors affecting the spatial and temporal variability
>> Soil chemical and physical variability within the field
>> The use of crop models in precision agriculture and site-specific management

Modelling the soil-plant-atmosphere interaction the DSSAT model

>> Theory of the model
>> Brief description of the Graphic user interface
>> Examples of model runs

Case studies

D. Cammarano

>> Regional integrated assessment: a lesson from AgMIP
>> An example of a regional integrated assessment from South Africa.

APPLICATION FORM AND DEADLINE

FIRST NAME(S) _____

FAMILY/LAST NAME _____

GENDER _____

HOME UNIVERSITY _____

DEPARTMENT _____

DEGREE COURSE (IF APPLICABLE) _____

COUNTRY _____

NATIONALITY (as in your passport) _____

E-MAIL ADDRESS _____

TELEPHONE NUMBER _____

ACCOMODATION (please state if you need an accomodation for your stay in Nuoro. For further information please see the ACCOMODATION section): YES/NO.

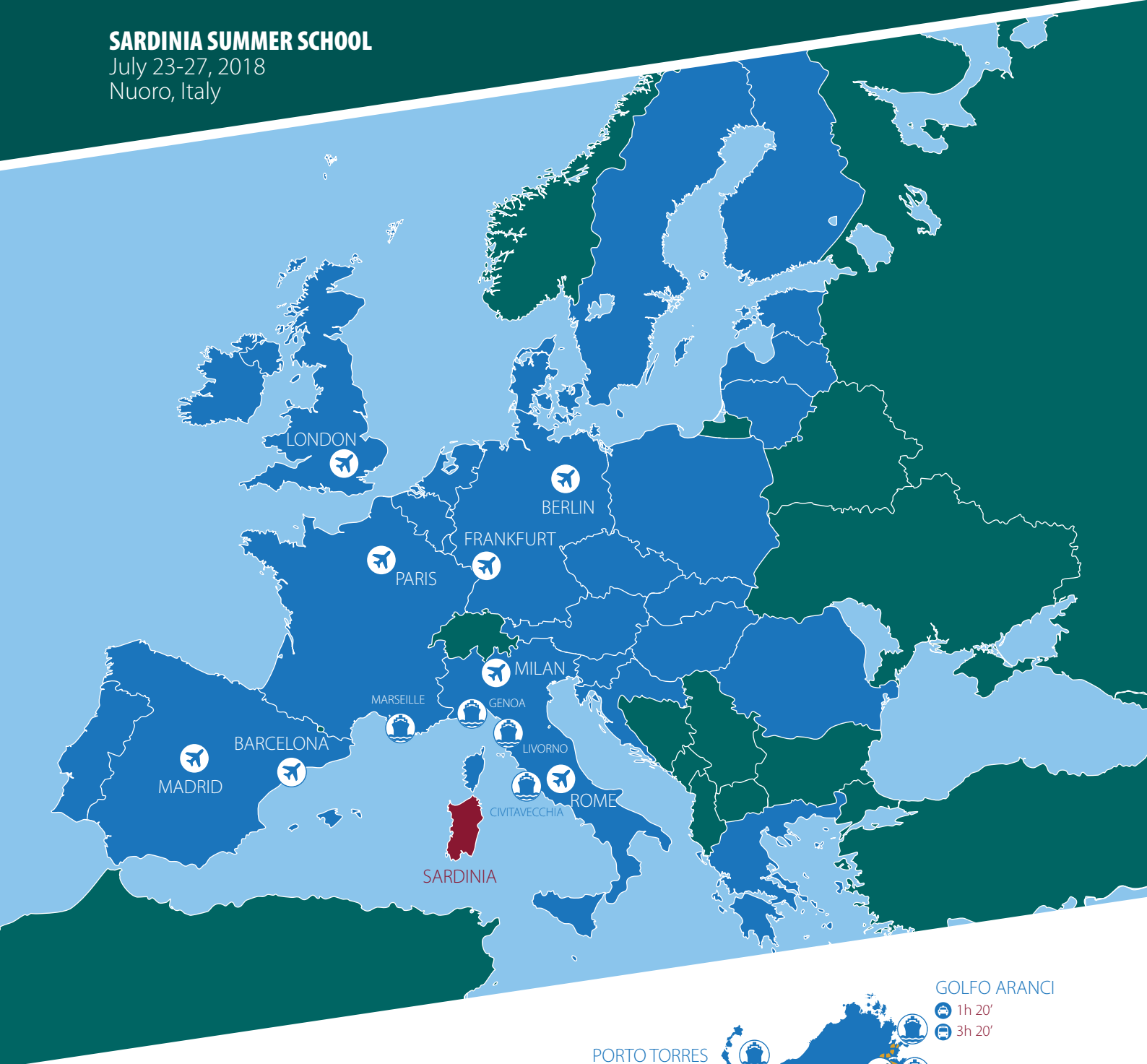
Please send a single .pdf file containing the application form and a curriculum to the School Secretariat (segreteriaidattica@uninuoro.it).

The final deadline for applying to the Summer School is June 15, 2018.

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HOW TO ARRIVE IN SARDINIA

BY PLANE

<http://www.sogaer.it/en/> (CAGLIARI)

<http://www.geasar.com/eng> (OLBIA)

<http://www.aeroportoalghero.it> (ALGHERO)

BY SHIP

<https://www.corsica-ferries.co.uk>

<http://www.gnv.it/en/>

<https://www.grimaldi-lines.com/en>

<http://www.mobylines.com/>

<https://en.tirrenia.it/>



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NUORO



MAIN VENUES

SUMMER SCHOOL ADDRESS

Via Salaris, 18

BUS TERMINAL

Viale Sardegna, 43

BUS STOP FOR SWIMMING POOL

Piazza Vittorio Emanuele, 18

TRAIN STATION

Piazza Berlinguer

TAXI

+39 392 2182350

BUS and TRAIN web address

<http://arst.sardegna.it>

LOCAL PUBLIC TRANSPORT

<http://www.atpnuoro.it/>



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CONTACTS

Summer School Director

Pier Paolo ROGGERO

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University of Sassari

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Summer School Secretariat

Gian Franco CAPRA

Department of Architecture, Design and Urban Planning (DADU)

University of Sassari

pedolnu@uniss.it



FEE AND PAYMENTS

By June 15, 2018 applicants will be requested to pay a participation fee of EUR 150. The fee will be refunded only in case the school is not activated because there will not be enough participants or the applicant exceeds 30 participants. Applications will be accepted in the order of arrival. In order to complete the registration, a copy of the completed bank transfer and a copy of the ID document in PDF format must be sent by email to:

segreteria didattica@uninuoro.it

BANKING DATA

**TESORERIA BANCO DI SARDEGNA
FILIALE DI NUORO**

IBAN: IT03Y0101517300000070420885

PAYMENT REFERENCE: "SURNAME" - Modelling sustainable farming
systems under climate change - July 2018

RECIPIENT: **Consorzio per la promozione degli Studi universitari
nella Sardegna centrale, Via Salaris n. 18, Nuoro.**

BIC (swift code): **BPMOIT22XXX**

UNIVERSIDADE
UNIVERSITA'

ORGANIZERS



uniss
UNIVERSITÀ DEGLI STUDI DI SASSARI



<https://en.uniss.it/nrd>



UniNuoro
Consorzio Universitario Nuoro

PARTNERSHIP

Forestas

Agenzia forestale regionale pro s'isvilupu de su territòriu e de s'ambiente de sa Sardigna

Agenzia forestale regionale per lo sviluppo del territorio e dell'ambiente della Sardegna



REGIONE AUTONOMA DE SARDIGNA
REGIONE AUTONOMA DELLA SARDEGNA



PROVINCIA
DI NUORO



COMUNE
DI NUORO

TEXAS A&M
AGRI LIFE
RESEARCH



DesertNet
International



www.desertnet-international.org

AgMIP

The Agricultural
Model Intercomparison
and Improvement Project

www.agmip.org



GLOBAL NETWORK OF DRYLAND RESEARCH INSTITUTES

GNDRI

www.gndri.net



MACSUR

www.macsur.eu



www.siaagr.it

SIPe
Società Italiana di Pedologia
Italian Society of Pedology

www.pedologiasipe.it