This 10-day course will train **early career scientists** (including advanced PhD students, postdocs, and Junior Faculty) in the discovery and use of **in-situ data** to address emerging issues in **carbon cycle science** including atmospheric science, biogeochemistry and ecosystem science. World-class scientists will provide hands-on instruction in the use of 'big data' from the **ICOS and NEON** observatories while discussing the frontier of carbon science and promoting the discovery of new research opportunities.

ICOS-NEON GREENHOUSE GAS DATA

TRAINING WORKSHOP

OHP, Haute-Provence, France

2-12 June 2015



Practical use cases and scientific hands-on approaches will be offered, focusing on emerging applications for data fusion across scales and regional boundaries. A field trip to visit the atmospheric ICOS station and the O3HP oak field is planned.

	Session 1. Overview GHG measurements in the Atmosphere and Ecosystem, Remote Sensing, Global integration	Session 4. Carbon Portals Importance of interoperability, ICOS Carbon Portal, NOAA Carbon Portal, NEON data portal, etc.
	Session 2. Atmosphere approaches Trend analysis, isotopic measurements, inverse modelling, data assimilation, Bayesian approaches	Session 5 . New frontiers of carbon science Urban Carbon, Lidar remote sensing of forest and biomass, Methane measurements,
	Session 3. Ecosystem approaches Data mining, parameterization and validation of	Session 6. Project Small group collaborative projects and presentations.

Venue

The Observatoire de Haute-Provence (OHP, http://www.obs-hp.fr) is an Observatory for atmospheric sciences and astronomy situated in Provence, southeast France, about 90 km east of Avignon, 100 km north of Marseille.

models, data assimilation, Bayesian approaches

A shuttle will be organized to reach the very remote venue from Marseille (and return). The venue is not reachable by public transport.



Registration and detailed information http://carbonws2015.sciencesconf.org









Target Audience

This training workshop aims at inspiring early career scientists including advanced PhD students, postdocs, and Junior Faculty to use "big data" to address continental to global scale emerging issues in GHG science. We are seeking early-adopters who wish to broaden and deepen their knowledge or to identify new research opportunities dedicated to GHG research. This 10-day course will be offered to 20-24 participants, who are expected to know basic computer programming in at least one language.

Registration Deadline 20 March 2015 with statement of interest, CV and letter of support

Costs no fee, shared lodging & meals included Language English

Organised by ICOS: www.icos-infrastructure.eu and NEON: www.neoninc.org



Keynote Speakers (TBC)

Philippe Ciais, LSCE, France

Steve Wofsy, Harvard, US

Frédéric Baret, INRA, France

Phil DeCola, Sigma Space, US

Andy Fox, NEON, US

Miguel Mahecha, MPI-BGC, Germany

Marcel van Oijen, CEH, UK

Philippe Peylin, LSCE, France

Martina Schmidt, IUP, Germany; etc.

Organizers

Bert Gielen, ICOS, Belgium

Hank Loescher, NEON Inc., US

Catherine Milcent, LSCE, France

Jean-Daniel Paris, ICOS, France Lindsay Powers, NEON Inc., US

Nadine Schneider, LSCE, France

Alex Vermeulen, ULUND, Sweden

Felix Vogel, LSCE, France

Irène Xueref-Remy, ICOS, France

About ICOS and NEON

ICOS and NEON research infrastructures are in-situ observation networks providing research data on greenhouse gas fluxes from ecosystems to the atmosphere. Together, ICOS and NEON aim to make these data available without technical, scientific or political barrier. These data typically include greenhouse gas (GHG) concentration, carbon and energy flux observations, and the surface micrometeorology surrounding these measurements. NEON is solely funded by the U.S. National Science Foundation (NSF).

This workshop is an initiative of the joint EU-US project COOPEUS www.coopeus.eu

Registration and detailed information http://carbonws2015.sciencesconf.org





