

Workshop on developing Python frameworks for earth system sciences



30 – 31 October 2018

LIVESTREAM LINK: <https://ecmwf.adobeconnect.com/ecmwfevents/>

Please note that all times in the programme of Greenwich Mean Time (GMT)

Programme

Tuesday 30 October

10:00-11:00	Registration and coffee	
11:00-11:10	Workshop opening	Erik Andersson (ECMWF)
11:10-11:20	Workshop housekeeping	Stephan Siemen (ECMWF)
11:20-11:40	One year on ... where are we?	Stephan Siemen (ECMWF)
11:40-12:00	Python in the Copernicus Climate Change Service	Gionata Biavati (ECMWF)
12:00-12:20	cfgrid: easy and efficient GRIB file access in xarray	Alessandro Amici (B-Open)
12:20-12:40	The new Python interface to Metview	Iain Russell (ECMWF)
12:40-13:00	Easy visualisation of NetCDF and GRIB data	Sylvie Lamy-Thepaut (ECMWF)
13:00-14:00	Lunch break	
14:00-14:20	Improving integration of XArray into MetPy	Ryan May (UCAR / Unidata)
14:20-14:40	CDO's python bindings	Ralf Müller (MPI for Meteorology)
14:40-15:00	The Open Data Cube (ODC) - A tool to increase the value and impact of global Earth observation satellite data	Dan Wicks (Satellite Applications Catapult)
15:00-15:20	The WRF4G Python Framework for regional climate simulations with WRF model	Antonio S. Cofiño (University of Cantabria)
15:20-15:50	Coffee break	
15:50-16:10	Parallel Python Tools for Handling Big Climate Data	Sheri Mickelson (NCAR)
16:10-16:30	The Pangeo ecosystem for data proximate analytics	Joseph Hamman (NCAR)
16:30-16:50	Dask: Scaling Analytics in Python	Matthew Rocklin (Anaconda)
16:50-17:10	Why the Met Office is backing Pangeo the open source community platform for Big Data geoscience	Theo McCaie (Informatics Lab, UK Met Office)

17:10-17:30	Working group 1 – Scalable data processing in Python	
19:00	Dinner at Cote Brasserie	
Wednesday 31 October		
09:10-09:30	GLOFRIM 2.0: coupling hydrologic and hydrodynamic models across scales for improved flood simulations	Dirk Eilander (Institute for Environmental Studies (IVM), Vrije Universiteit Amsterdam)
09:30-09:50	Rainymotion and RainNet: optical flow and deep learning models for radar-based precipitation nowcasting	Georgy Ayzel (University of Potsdam)
09:50-10:10	Python frameworks for the integration of a real-time data hub for meteorological and hydrological forecasting – benchmarks and design decisions	Alberto Sabater Morales, Jackie Leng (Kisters)
10:10-10:30	Open radar science for fun and, yes, even profit.	Scott Collis (Argonne National Laboratory)
10:30-11:00	Coffee break	
11:00-11:20	METplus - a Python-Wrapped Verification Capability Unifying the US Verification and Validation Community	Tara Jensen (NCAR & DTC)
11:20-11:40	Heterogeneous computing with Python: why we need it?	Javier Vegas-Regidor (Barcelona Supercomputing Center)
11:45-13:00	Working group 2 – Interoperability and common data structures – beyond xarray	Council Chamber
13:00-14:00	Lunch break	
14:00-15:30	Working group 3 – Providing user & development environments to work with meteorological data	Council Chamber
15:30-16:00	Coffee break	
16:00-16:30	Discussion and summary of workshop → discuss follow-up actions	Council Chamber
16:30	Workshop closure	