ScaleX 2016: Bringing together heterogeneous data from a joint field campaign

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The ScaleX 2016 campaign in Fendt

Germany

Fendt

- Aim of ScaleX: closing gaps in observation of biogeochemical cycles

- Fendt site: rural area, mostly grassland

Highly diverse data landscape

Example	Time interval	Space dimensions
Wheather station	10 min	0D
SODAR	5 min	1D periodic
Satellite imagery	days	2D periodic
Unmanned aircraft	1 s during flights	3D arbitrary
Meteorol. models	seconds	3D periodic

Multicopter carrying a carbon dioxide analyser

How to facilitate data exchange and fusion?

- Container format (comma-separated value, spreadsheet, NetCDF, Rdata, …)

- Data format (coordinates, date and time strings, units)

- Metadata (data source, corrections, …)

- Subsetting several datasets at once (e.g. All measurements available on 7 July between 20:15 and 20:21)

- Publication and Archiving

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