Data aquisition and post-processing

Raw data processing

- · despiking
- · lag-time correction
- · detrending
- \cdot coordinate rotation
- · time averaging
- · calculation of covariances
- · WPL correction
- · SND correction
- $\cdot \ unit \ conversion \rightarrow flux$
- · quality flagging
- · flux gap-filling

Download postprocessed data

Turbulence analysis

Turbulence diagnostics

- · stability parameter
- · TKE, friction velocity, ...

Quadrant analysis

- · coherent structures
- $\cdot \ organization \ ratio$

Spectra

- · averaged FFT spectra
- · MRD spectra / wavelets

Anisotropy analysis

- \cdot Reynolds stress tensor
- · barycentric map

Flux footprint

· 2D flux footprint

Turbulence modelling and energy balance

Turbulence modelling / parameterizations

- · bulk closures
- · eddy-diffusivity closures
- · flux-variance relations
- · flux-profile relations

Surface energy balance

- · radiative fluxes
- · residual and closure ratio

Ecohydrology

- · Bowen ratio
- · evaporative fraction
- flux partitioning

Meteorological and environmental contextualization

· wind speed profiles, gradients, Richardson number, clear-sky index, ...