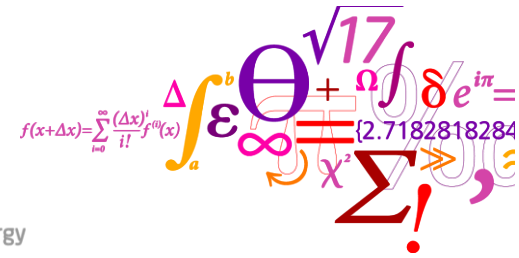
Post processing tools

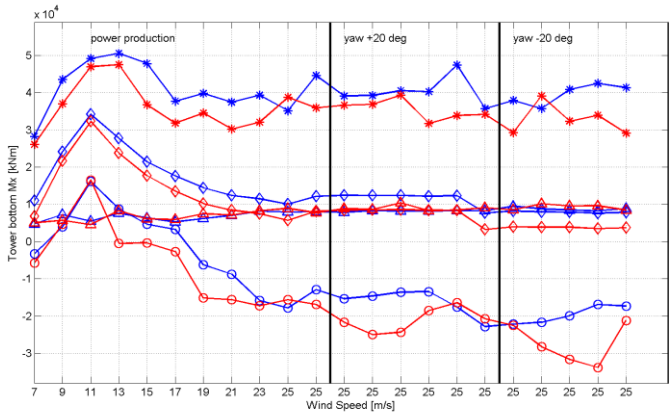


Risø DTU
National Laboratory for Sustainable Energy

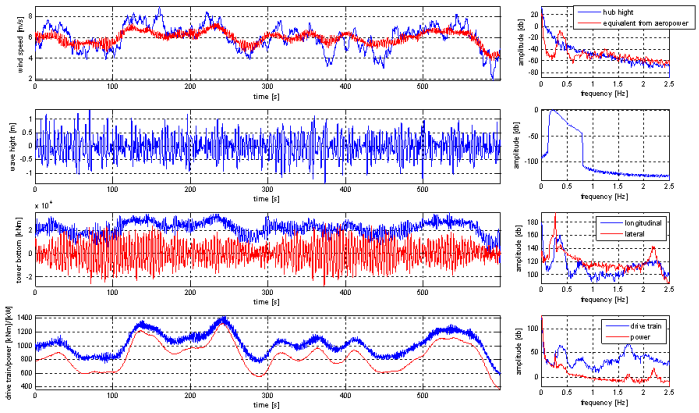
The toolbox

- Time series analysis
  - Windap
  - Mplot
  - Python
- Statistics overview
  - statistik.exe (pascal)
  - Matlab
  - Python
- Fatigue analysis
  - rfc_j.exe (pascal)
  - Matlab
  - Python

Statistics overview



mplot

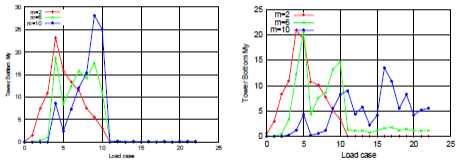


Fatigue analysis

Table 4. Equivalent loads for the offshore wind turbine divided by the corresponding loads for the onshore turbine for different m-values

m	3	4	6	8	10	12
Tower bottom fore-aft bending	1.15	1.23	1.34	1.40	1.44	1.46
Tower bottom sideways bending	0.28	0.30	0.34	0.39	0.44	0.50
Tower bottom yaw motion	0.93	0.94	0.96	0.97	0.97	0.98
Tower top fore-aft bending	1.05	1.05	1.04	1.04	1.03	1.03
Tower top sideways bending	1.66	1.75	1.79	1.78	1.77	1.76
Tower top yaw motion	0.96	0.96	0.98	0.98	0.99	0.99
Rotating moment of shaft	1.05	1.04	1.04	1.04	1.04	1.04
Driving torque of shaft	1.85	1.86	1.88	1.87	1.85	1.83
Flapwise blade motion	1.04	1.05	1.07	1.09	1.10	1.10
Edgewise blade motion	0.99	0.99	0.99	0.99	0.99	0.99
Twisting blade motion	1.03	1.03	1.03	1.03	1.04	1.04

Tower Bottom Bending Moment for Sideways Motion



(a) (b)