

Wind Turbine sub-communicator

CPU 1	CPU 2	CPU 3	CPU 4
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ALM

Flow velocity sampling to the control points

MPI_reduce: velocity at each control point

Computation of the
forces

MPI_Bcast: force distribution on the blades

Struct.

Solve Beam 1 Solve Beam 2 Solve Beam 3

Loop over
dt_struct

Drivetrain Dyn.

MPI_Reduce: rotor hub loads

Controller

MPI_Bcast : hub azimuth, rotor speed and pitch angle

ALM

MPI_Bcast: Blades displacement

Flow velocity sampling

Computation of the forces

Distribution of the forces