Parallelization of Lagrangian approach – I

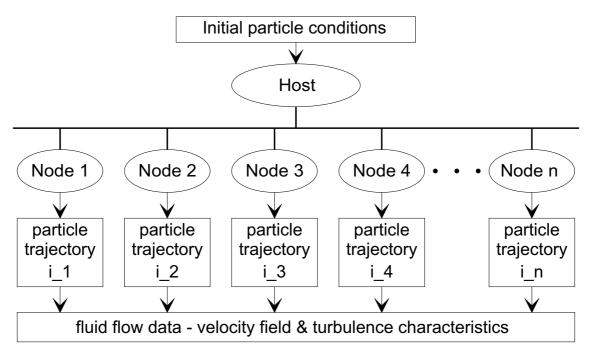- no interaction between particles $\Longrightarrow$ independent calculation of particle trajectories

- host–node programming model

  host :
  - initial conditions of particle trajectories
  - workflow organization
  - load balancing

  nodes :
  - calcualtion of particle trajectories
  - calculation of source term contributions
  - calculation of mean particle flow properties (velocity field, concentration distribution, etc.)

- parallelization problem : data dependencies between particle trajectories and the fluid flow field

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Parallel CFD '96
Comparison of Parallelization Methods for Lagrangian
Calculations of Disperse Multiphase Flows
Dr. Th. Frank, Technical University Chemnitz–Zwickau, Germany

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