

1 Mass loss from inhomogeneous hot star winds (Sundqvist)

- GOAL: synthesis of UV resonance lines from inhomogeneous 2D winds
 - clumped in density
 - clumped in velocity
 - effects of non-void inter-clump medium
- WIND MODELS
 - symmetry assumptions
 - * 1D: spherical symmetry
 - * 2D: symmetry in Φ
 - models
 1. time-dependent radiation-hydrodynamic from Puls and Owocki (POF)
 - * 1D
 - * isothermal flow
 - * perturbations triggered by photospheric sound waves
 2. time-dependent radiation-hydrodynamic from Feldmeier (FPP)
 - * 1D
 - * treatment of energy equation
 - * perturbations triggered by photospheric sound waves or Langevin perturbations (photospheric turbulence)
 3. stochastic model, clumped in density
 - * smooth winds with $v_\beta = (1 - b/r)^\beta$ with $\beta = 1$
 - * clumping factor f_{cl}
 4. stochastic model, clumped in density and in velocity (non-monotonic velocity field)
 - * smooth winds with $v_\beta = (1 - b/r)^\beta$ with $\beta = 1$
 - * clumping factor f_{cl}
- RADIATIVE TRANSFER (MC-2D)