Neutral-Loss Study

Goal: calc. expected fast ion CX loss vs a

1) Start by using Transp in axisymmetric approximation
   - do the two extreme cross-section shapes

2) to do 3D calculation, need
   - 3D neutral calculation
   - 3D orbit beam deposition
   - 3D orbiting with CX loss

Ultimately, want integrated code handling full calculation for accurate analysis. i.e. 3D Transp

In near term, need characterization. Use separate codes for each step, and modify them to accept input from each other.

a) 3D neutrals:
   use Degas, benchmark to Eirene
   start with 2D Degas grid,
      average results for ~ 4 cross-sections
   move to full 3D grid.

b) Beam deposition
   Start using axisymmetric from Transp, using extreme
      cross-section shapes
   Probably move to using pencil-beam deposition in Whist

c) 3D orbiting
   probably modify Roscoe's orbit-code to calculate CX
   loss using average neutral profile from (a)