Numerical codes for electron cyclotron heating and current drive

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TORAY-FOM description

- Electron cyclotron ray tracing code
- Choice of cold or warm plasma dispersion relation
- Absorption for a weakly or fully relativistic warm plasma
- ECCD: adjoint approach
  - CURBA routine (Cohen, *Phys. Fluids* (1987) **30** 2442)
  - LIN-LIU routine (Lin-Liu *et al.*, PoP (2003) **10** 4064)
- Interface with Fokker-Planck code RELAX

TORAY-FOM @ ITM

- TORAY-FOM on the gateway
- f90 version implemented
- All NAG library routines have been replaced

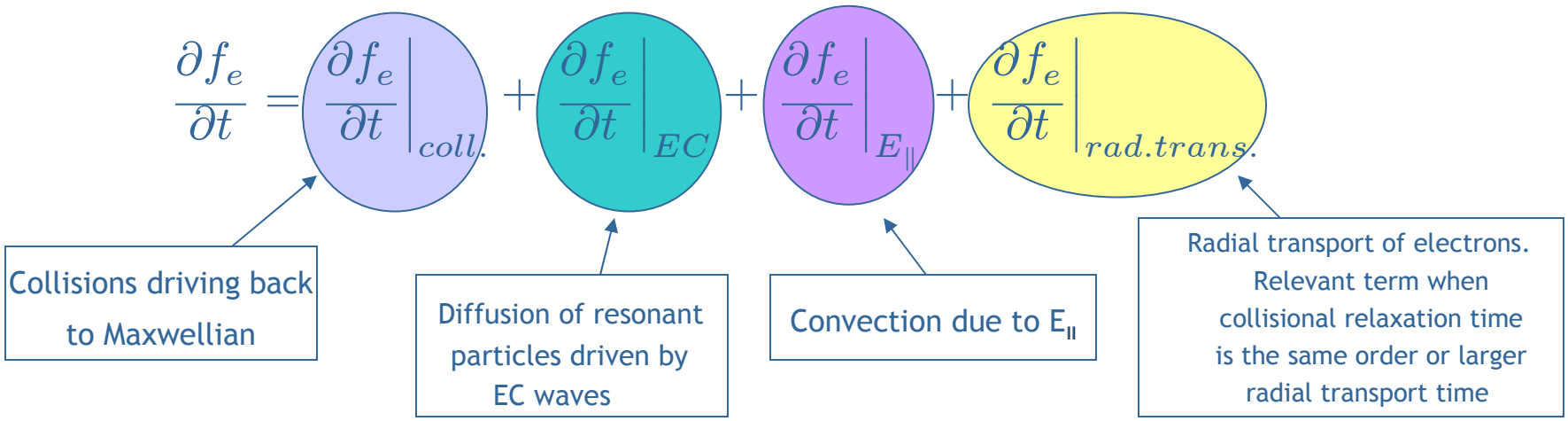
Work to do

- Interface with CPOs

See poster presented by E. Westerhof

RELAX description

- Fokker-Planck code:
  bounce-averaged quasi-linear Fokker–Planck equation



- Interface with TORAY-FOM:
  provide locations of and wave parameters at the crossings of the wave beam with magnetic surfaces

RELAX @ ITM

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Work to do

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