

- Three equilibrium codes—EFIT++, FREEBIE and VacTH—have been successfully set up and validated on COMPASS.
- FREEBIE can predictively calculate the equilibrium and corresponding poloidal field coil currents.
- EFIT++ can reconstruct equilibria generated by FREEBIE from synthetic, optionally noisy diagnostic data.
- VacTH is a promising tool for real time plasma shape reconstruction.
- Optimized parameters are estimated for EFIT++ and VacTH by a statistical analysis.