

## New results in stellarator optimisation

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The ROSE code was written for the optimisation of stellarator equilibria. It uses VMEC for the equilibrium calculation and several different optimising algorithms for adjusting the boundary coefficients of the plasma. Some of the most important capabilities include optimisation for simple coils, the ability to simultaneously optimise vacuum and finite beta field, direct analysis of particle drift orbits and direct shaping of the magnetic field structure. ROSE was used to optimise quasi-isodynamic, quasi-axially symmetric and quasi-helically symmetric stellarator configurations.

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