

BVPs

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graph LR; BVPs[BVPs] --- Shooting; BVPs --- Relaxation; Shooting --- simple_shooting[simple shooting]; Shooting --- multiple_shooting[multiple shooting]; simple_shooting --- IVP_solve[use IVP solves]; multiple_shooting --- IVP_solve; Relaxation --- Finite_difference[Finite difference]; Relaxation --- weighted_residual[weighted residual]; Relaxation --- finite_volume_method[finite volume method]; weighted_residual --- Galerkin_method[Galerkin method]; weighted_residual --- Collocation_method[Collocation method]; Galerkin_method --- FEM[e.g. FEM]; Collocation_method --- pseduospectral[e.g. pseduospectral]; Finite_difference --- integral_conservation[the integral conservation law]; finite_volume_method --- integral_conservation;
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Shooting

simple shooting

multiple shooting

use IVP solves

Relaxation

Finite difference

weighted residual

Galerkin method — e.g. FEM

Collocation method — e.g. pseduospectral

finite volume method

the integral conservation law