

PhD research topic proposal
BME, Doctoral School of Mathematics and Computer Science

Name and degree of supervisor :

Istvan Faragó, PhD

Are you willing to supervise Stipendium Hungaricum applicants?

yes

Title of the topic:

Numerical methods of boundary value problems for ODE

Short description:

Typically, the two points boundary value problems for ordinary differential equations cannot be solved analytically therefore one should use numerical methods, Different methods are used to this aim. The key point of the solution method is the linearization step which can be done in different way. In this project the Galerkin-Legendre and the Carleman methods are investigated.

Requirements:

Strong knowledge in numerical analysis and theory of differential equations, good proficiency in Matlab programming.

Contact:

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Place of work:

Budapest University of Technology and Economics, Institute of Mathematics