

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

Name of supervisor :

Sándor Bozóki

Degree:

PhD

Title of the topic:

Solving systems of nonlinear equations

Short description:

Systems of nonlinear equations, with the same number of variables are equations, are hard to solve, even if all the equations are polynomial. However, the transcendental functions can be approximated by polynomials, and the solutions of the approximating polynomial system, found, e.g., by the homotopy continuation method, can be used as initial points of a Newton's iteration.

Requirements:

standard knowledge of algebra and numerical analysis

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Place of work:

SZTAKI - Institute for Computer Science and Control