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

Name of supervisor :

Milán Mosonyi

Degree:

PhD

Title of the topic:

Quantum Information Theory

Short description:

The aim of the project is to study the ultimate efficiency that can be achieved in quantum information theoretic protocols by determining trade-off curves between the operational quantities characterizing the information theoretic tasks, and to connect them to various entropy-like quantities of quantum states. The latter will be investigated using tools from matrix analysis and operator algebras.

Requirements:

Very strong mathematical background, especially in linear algebra, and an interest in mathematical physics and information theory. Prior knowledge in functional analysis, information theory or quantum information theory is an advantage but not required.

Contact:

Phone:

E-mail:

Place of work:

Institute of Mathematics, Budapest University of Technology and Economics

Statement: *The conditions of the research above are satisfied, the theme is confirmed by the head of the Department/Institute*