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

Name and degree of supervisor :

Pitrik József

Are you willing to supervise Stipendium Hungaricum applicants?

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Title of the topic:

Quantum Optimal Transport Theory

Short description:

The theory of optimal transport has experienced rapid growth in recent years with applications in diverse fields across pure and applied mathematics (statistics, machine learning, probability theory, fluid mechanics, etc.). Along with this growth came a lot of interest in extending the methods of optimal transport beyond the scope of its original formulation as an optimization problem for the transport cost between two probability measures. One such extension deals with "quantum spaces" , where the probability measures are replaced by density matrices. The task of the applicant to reach results in this generalization.

Requirements:
Contact:
E-mail:

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Place of work:

Institute of Mathematics, Department of Analysis and Operations Research