哈爾濱工業大學 数学研究院
Institute for Advanced Study in Mathematics of HIT

Functional Analysis Seminar

Reliability Function of Quantum Information Decoupling

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Abstract

Quantum information decoupling is a fundamental information processing task, which also serves as a crucial tool in a diversity of topics in quantum physics. I will talk about our recent results on its reliability function, that is, the best exponential rate under which perfect decoupling is asymptotically approached. We have obtained the exact formula when the decoupling cost is below a critical value. In the situation of high cost, we provide upper and lower bounds. These results are given in terms of the sandwiched Rényi divergence, providing it with a new type of operational meaning. (Based on joint work with Yongsheng Yao, arXiv:2111.06343)

Time: Wednesday, May 25, 2022, 16:00-17:30 (UTC+8)

Place: Mingde Building, B201-1

Zoom ID: 824 7045 6491

Password: 123399

Link: https://zoom.us/j/82470456491?pwd=dGswU3d3RGd1L1d4a3ZvSXdnakVkUT09

More information on the Functional Analysis Seminar:
http://im.hit.edu.cn/en/2022/0414/c8931a271838/page.htm