COURSE DETAIL

ANALYSIS IN QUANTUM INFORMATION THEORY

Country Denmark

Host Institution University of Copenhagen

Program(s) University of Copenhagen

UCEAP Course Level Upper Division

UCEAP Subject Area(s) Mathematics

UCEAP Course Number 153

UCEAP Course Suffix

UCEAP Official Title ANALYSIS IN QUANTUM INFORMATION THEORY

UCEAP Transcript Title QUANTUM INFO THEORY

UCEAP Quarter Units 6.00

UCEAP Semester Units 4.00

Course Description

This course provides the analytic background behind quantum information theory in the framework of operators on Hilbert spaces and functional analysis. Topics include completely positive and completely bounded maps; operator systems and spaces; Choi representation and Kraus operators; Stinespring's representation theorem; tensor products; quantum measurements and related sets of correlations; entanglement; Schmidt decompositions; and factorizable channels and applications in quantum information theory.

Language(s) of Instruction English

Host Institution Course Number NMAK22000U

Host Institution Course Title ANALYSIS IN QUANTUM INFORMATION THEORY

Host Institution Campus

Host Institution Faculty

Faculty of Science

Host Institution Degree

Master

Host Institution Department

Department of Mathematical Sciences

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