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 Course Details
https://kurser.ku.dk/course/nmak22000u/2022-2023

Host Institution Campus

Host Institution Faculty
Faculty of Science

Host Institution Degree
Master

Host Institution Department
Department of Mathematical Sciences

Course Last Reviewed
2022-2023

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