ECOS-Sud A17C03 QuCa: Quantum Calculi

Duración: 01/2018 al 12/2020

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Resumen: We propose to study quantum pi and lambda calculi. We defined five tasks: To define a type system of superpositions and measurements on top of the linear-algebraic lambda-calculus. To define a lambda calculus of density matrices. To study reversible computation in the setting of quantum control. To define a pi-calculus to study quantum causal order. To study quantum lambda calculi with techniques coming from realizability.