



# Ypatia 2022 - June 8-10, 2022

## vendredi 10 juin 2022

Abstract: Alice and Bob are conventional placeholders in Information Theory, particularly in Quantum Information. The study of the amount of information exchanged between Alice and Bob is a basic problem. Quantum Information is a fast-growing subject, that so far has mostly been concerned with finite-dimensional systems. The study of Quantum Information for infinite systems can however be traced back to the '70s work by Bekenstein and Hawking on the thermodynamics of a black hole, the wonderland. During the recent years, Operator Algebras have provided the essential language and the methods for a rigorous study of Quantum Information for infinite systems, uncovering new structures. I will review some of the results and of the problems that concern my own work. (14:20 - 15:20)