

## **Automata, Boolean TQFT and pseudocharacters**

Finite-state automata (FSA) are important objects in theoretical computer science. I will describe how a Boolean-valued Topological Quantum Field Theory in dimension one carrying defects gives rise to an automaton. The regular language of the automaton appears through the evaluation of decorated one-manifolds. If time allows, I will explain how group characters and pseudocharacters appear in topological theory and TQFTs in one dimension with defects. Pseudocharacters are an essential tool in modern number theory. The former is joint with M. Khovanov, and the latter is joint with M. Khovanov and V. Ostrik.