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Title: From fractional quantum Hall to fractional Chern Insulators

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The interest in the field of topological insulators has exploded in recent years. Topological insulators are mainly one body problems, neglecting interactions. As such, the type of interacting topologically ordered state with fractional statistic quasiparticles such as the fractional quantum Hall has not been found or proposed in a weakly interacting topological insulator. We will show that recent numerical studies, based on exact diagonalizations, convincingly indicate that FQH phases may emerge in strongly interacting topological insulators. In particular, we will discuss how entanglement spectra provide an ideal tool to probe these systems. We will give a short introduction to the freely available numerical package that we have developed. We will discuss the technical challenges behind such a project, trying to combine both high performances and easy access.