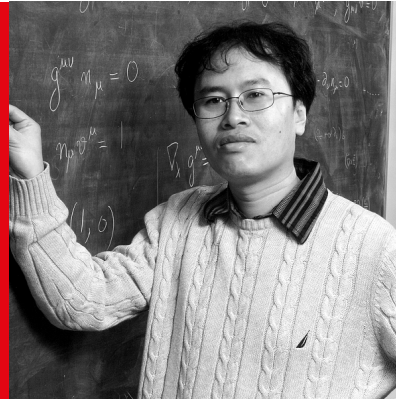


The emergent "graviton" in the fractional quantum Hall effect

APERO
after the
colloquium



Prof. Dam T. Son
University of Chicago

Monday
December 15th
16:15
MA B1 11

In fractional quantum Hall states, electrons self-organize into a strongly interacting fluid with nontrivial emergent properties. It has recently been understood that fractional quantum Hall fluids accommodate one or several spin-2 excitations, which have been argued to be condensed-matter analogues of the graviton. In this talk we will review the origin of the idea of the graviton and the basic physics of the fractional quantum Hall effect. We then discuss a recent experiment claiming observation of a graviton-like mode in fractional quantum Hall effect and its broader implications.