

University of Wisconsin-Milwaukee

**Dept. of Physics
COLLOQUIUM**

*Emergent Particles and Topology in
Flat Landau Bands*

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3:30 PM (start) KIRC 1150

Electronic systems with flat energy bands support a variety of topological phases of current interest. The two-dimensional electron gas in the fractional quantum Hall regime is such a system. Ground states of this system found an elegant description in terms of emergent particles called composite fermions.

In this talk we review the topological ground states and some of their basic properties and discuss two recent discoveries: fractional quantum Hall states associated with flux-six composite fermions and a bubble phase of composite fermions.

