Title:

Spontaneous coherence and spin currents in a gas of indirect excitons

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Abstract:

An indirect exciton is a bound pair of an electron and a hole confined in spatially separated layers. Due to their long lifetimes, indirect excitons can cool down below the temperature of quantum degeneracy. This gives an opportunity to realize cold exciton gases. We will present spontaneous coherence and condensation, spatial ordering, and spin currents in a cold exciton gas.