

1163-81-260

**Anna Vershynina\*** ([anna@math.uh.edu](mailto:anna@math.uh.edu)), 2912 Jackson Street, Houston, TX 77004. *How close is "close" is quantum mechanics?*

The talk will start with a broad crash course in quantum mechanics and quantum information theory. After introducing several measures of "closeness" between quantum states, we will present a notoriously simple Pinsker inequality relating some of these measures. A reverse inequality has been proven to be difficult to obtain and in some cases difficult to calculate. A result of the speaker provides a reversed Pinsker inequality in its most simple form. The result holds for any quasi-relative entropy and qubit states, or for finite-dimensional states and regular relative entropy or Tsallis q-entropy. (Received August 31, 2020)