

Kolokviální přednáška se koná ve středu 19.4.2017, od 16:00 v posluchárně M1

Phan Thanh Nam

Semiclassical analysis and Lieb-Thirring inequality

Abstract:

In 1975, Lieb and Thirring found an elegant combination of uncertainty principle and Pauli's exclusion principle in terms of a lower bound on the kinetic energy. Their bound agrees with the semiclassical approximation used in the Thomas-Fermi theory, up to a constant factor. It has been a long-standing conjecture that the sharp constant coincides with the semiclassical one. In the talk, I will prove a Lieb-Thirring type inequality with the sharp constant and a gradient error term which is of lower order.