

ОБЪЕДИНЕННЫЙ ИНСТИТУТ ЯДЕРНЫХ ИССЛЕДОВАНИЙ
Лаборатория теоретической физики им. Н. Н. Боголюбова



Семинар
«МАЛОЧАСТИЧНЫЕ СИСТЕМЫ»
вторник, 13 ноября 2012 г., 11:00
аудитория II этажа

**SCATTERING OF A SLOW QUANTUM PARTICLE
BY AN AXIALLY SYMMETRICAL SHORT-RANGE POTENTIAL**

V. V. Pupyshev

Bogoliubov Laboratory of Theoretical Physics, JINR, Dubna

In the present work the linear version of the variable phase approach to the potential scattering is added by a new asymptotical method. This method is adopted for a quantum mechanical analysis and the construction of explicit low-energy approximations for the partial phase shifts, amplitudes, cross-sections and radial components of the wave function describing the scattering of a quantum particle by an axially symmetrical short-range potential.