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



Семинар «МАЛОЧАСТИЧНЫЕ СИСТЕМЫ»

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GROWTH POINTS OF THE (UNIVERSAL) FEW-BODY PHYSICS

Oleg I. Kartavtsev

Dzhelepov Laboratory of Nuclear Problems, JINR

Overview of the few-body problems of topical interest is given. Most attention is devoted to the systems, which reveal new and peculiar properties and for which a fast progress is desired. Their modern status is described, unresolved questions are indicated and possible developments are discussed.

An incomplete list of topics includes: appearance of the infinite double-exponential energy spectrum, also known as "super-Efimov" effect; universal four-body resonances in bosonic and fermionic systems; few particles with inverse-square potentials; few-body problem for the sum of the repulsive Coulomb and contact potentials; features of few particles in low and "mixed" dimensions.