

**On RMS Envelope Equation Problem for Non-Linear Motion**, L. BOBYLEVA, E. PERELSTEIN, JINR, Dubna, Russia - The problem of a model RMS envelope equation construction for a nonlinear motion have been studied. The RMS equation was deduced from an infinite system of linear differential equations for moments with a help of Bogoljubov's asymptotic method. For example, an ensemble of nonlinear oscillators was considered in external stationary fields (smooth channel). The problem of nonlinear beam self fields is under discussion too.