ION-ACOUSTIC TURBULENCE IN PLASMAS

V.P. Silin

P.N. Lebedev Physical Institute (*RAS*, *Russia*)

S u m m a r y

The new properties of plasmas with ion-acoustic turbulence (IAT) related to the turbulent heating of particles are discussed. We expound the ideas of the coarsened theory of IAT, which allows one to describe the strong heating of particles. The description of the competition of the electron heating and the ion heating allows us to open the discussion about the finite existence time of IAT and to give some estimation of such time. It is also demonstrated that the usual model of IAT the yields time-dependent electric conductivity in a constant-strength electric field and a nonlinear time dispersion for the conductivity in a quasistationary field.