

(S) -convergence and approximation of oscillatory solutions in fluid dynamics

15th, October

Abstract: We propose a new concept of (S) -convergence applicable to numerical methods as well as other consistent approximations of the Euler system in gas dynamics. (S) -convergence, based on averaging in the spirit of Strong Law of Large Numbers, reflects the asymptotic properties of a given approximate sequence better than the standard description via Young measures. Similarity with the tools of ergodic theory is discussed.