

1018-37-113

**Victor Chulaevsky\*** ([victor.tchoulaevski@univ-reims.fr](mailto:victor.tchoulaevski@univ-reims.fr)), Universite de Reims,  
Departement de Mathematiques, Moulin de la Housse, B.P. 1039, 51687 Reims, France. *Grand  
ensembles of random systems and randelette expansions.*

Analysis of disordered systems with spatial or temporal randomness often requires regularity of marginal distributions of those systems. Such methods fail to apply directly to deterministic random systems, even strongly mixing. We show that introducing sufficiently rich ensembles of deterministic systems via special expansions ("randelette" expansions) allows to extend powerful existing methods to the area of deterministic random systems. Our general approach is illustrated on the example of Wegner type estimates in spectral theory of random operators with deterministic (e.g., quasiperiodic) coefficients, where an exponential decay of eigenfunctions (a particular case of hyperbolic behaviour), otherwise difficult to prove, can be relatively easily proved by standard methods with the help of randelette expansions. (Received March 02, 2006)