1023-60-1769 Yuriy V Kolomiets* (ykolomiy@math.kent.edu), Department of Mathematical Sciences, Kent State University, Kent, OH 44242. Fractional Stability Of Functional CLT.

We consider the systems of random differential equations. The coefficients of the equations depend on a small parameter. The first equations, "slow" components, Ordinary Differential Equations (ODE), have unbounded highly oscillating in space variable coefficients and random disturbances, which are described by the second equations, "fast" components, with periodic coefficients. The sufficient conditions for weak convergence as small parameter goes to zero of the solutions to the "slow" components to the solution of Stochastic Differential Equation (SDE) are obtained. Classical Diffusion Approximation Theorem (DAT) says, that drift coefficient of the approximated (SDE) include a derivative with respect to a space variable of the unbounded coefficients. So, we can not apply classical DAT because of highly oscillating character of dependency on the small parameter of the unbounded coefficients of the "slow" components. From other hand we can not apply the Limit Theorem for SDE because the "slow" components are ODE and consequently have no nonzero diffusion coefficients (the presence of strongly positive diffusion coefficients is a necessary condition for such kind of the theorems). (Received September 26, 2006)