A universal consideration on the homogenization problems of infinite dimensional diffusions

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Abstract: These problems of the homogenization of infinite dimensional diffusions, that have been rarely solved, are disucussed. By considering a general structure of such problems, a universal framework of the problem is presented. It is shown that on the infinite dimensional problems it is possible to formulate them by several substantially different ways corresponding to different level of infinitenesses. Some examples that can be formulated within the above universal framework are considered and solved.