

Scientific report on a visit to the Ruhr University at Bochum, Germany.

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The purpose of my visits to Bochum was to continue working with Prof. A. Huckleberry and other colleagues on problems concerned with spectral analysis of Hermitian and non-Hermitian Anderson models. Many problems of this sort can in turn be reduced to questions about existence of distinct Lyapunov exponents. Finally the latter have to do with compactness of certain groups of transformations of fiber spaces. These groups and questions about their classification were the main subject of our discussions. It is early to predict final results of this activity but there is a hope that the combination of classification results with special properties of transformations originating from spectral theory (in particular, extensions of the Thouless formulae to operators in a strip) will lead to truly constructive criteria allowing one to control the behaviour of Lyapunov exponents.

We are going to continue this work. My next visit to Bochum (a brief one) is going to take place in November of this year.