

A remark on quantization of Harish-Chandra modules.

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Let G be a real reductive group, K a maximal compact subgroup of G . Important role in representation theory plays the category $\mathcal{M}(\mathfrak{g}, K)$ of Harish-Chandra modules.

Consider the quantization G_q of the group G . I will discuss how one can approach the problem of quantization of Harish-Chandra modules.

The main idea (due to W. Soergel and myself) is to realize the category $\mathcal{M}(\mathfrak{g}, K)$ as a category of sheaves on the symmetric space $X = G/K$. After this we can use the work by J. Donin and S. Shnider who explained how to quantize the symmetric space X .