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**Natural quantizations for AHS structures**

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In my talk I will outline joint work with J. Šilhan, see arXiv:0904.3278.

The basic problem of natural quantizations is to associate a differential operator to any given principal symbol in a way which is intrinsic to a given geometric structure. For any structure which gives rise to a canonical linear connection on the tangent bundle, this is very easy. Generalizing this situation, quantizations which are natural for a projective or conformal structure have been intensively studied in the literature.

Projective and conformal structures form special instances of so-called AHS-structures. These are characterized by an equivalent description in terms of a Cartan geometry modelled on certain types of generalized flag manifolds. Using this Cartan geometry, we provide a form construction of a natural quantization for operators acting between sections of arbitrary irreducible bundles.