

Seminář z diferenciální geometrie pokračuje 14.10.2019 od 10:00 v učebně M5

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The Poincare lemma, antiexact forms, and fermionic quantum harmonic oscillator

Abstrakt:

I will present the connection between Poincare lemma and homotopy operator defined by Edelen. This will be used to determine functional calculus (Bittner's operator calculus), which, in the case of a homotopy operator, resembles quantum fermionic oscillator algebra.

I will also present a topological/chain complex version of a homotopy operator.

Finally, I will show how this operator calculus looks in the setup of complex manifolds and how it 'interacts' with the Dolbeault complex.