

Fridrich Valach: diploma theses

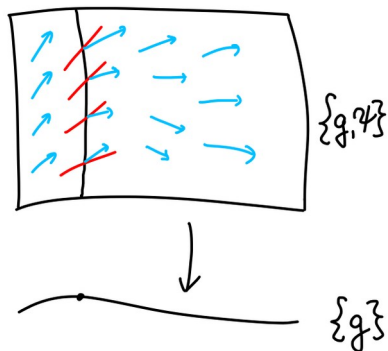
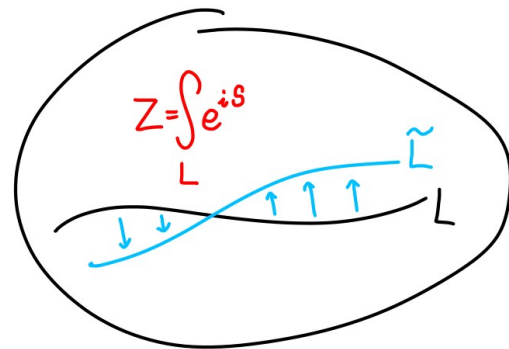
My research: mathematical physics, geometry, string theory, supergravity

Batalin–Vilkovisky formalism: a case study

Setup: quantising systems with local symmetry is hard
general method = BV formalism

Proposal: BV analysis of “dilaton supergravity”
simple but symmetry reminiscent of 10D sugra

Uses: QFT, differential geometry



Lie derivative of spinors and generalised geometry

Setup: how do spinors in GR transform under diffeomorphisms
(changes of coordinates)?

Proposal: understand the above, then move to 10D supergravity
describe spinor Lie derivative in generalised geometry

Uses: differential geometry