

Geometry of moduli spaces of Higgs bundles on curves.

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Moduli spaces of Higgs bundles possess a wealth of unusual geometric properties that made them appear in very different contexts: They admit a natural family of different complex structures, form an integrable system, give a geometric description of terms appearing in the trace formula, are diffeomorphic to character varieties, etc. In the talk I will try to explain some of these structures and report on some recent results and open questions on the geometry of these spaces.