Moduli of Higgs bundles over the five punctured sphere

We look at rank two parabolic Higgs bundles over the projective line minus five points The moduli space is studied in details and all singular fibers of the Hitchin map are described, including the nilpotent cone. After giving a description of fixed points of the \mathbb{C}^* -action, we obtain a proof of Simpson's foliation conjecture in this specific case. This is joint work with Frank Loray.

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