In this talk I will revisit the asymptotic structure of the $SL(2, \mathbb{C})$ character variety of a closed surface group. Recent work of Taubes and Mazzeo, et al. describes the large scale behavior of solutions to the Hitchin equations in terms of certain limiting configurations. I will show how these correspond, via harmonic maps, exactly to Bonahon’s parametrization of pleated surfaces in hyperbolic 3-space by transverse and bending cocycles for a geodesic lamination. This gives a geometric description of the asymptotic integrable system.

*This is joint work with Andreas Ott, Jan Swoboda, and Mike Wolf.*

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