1145-53-1720   **Richard Alan Wentworth*** (`raw@umd.edu`), Department of Mathematics, University of Maryland, College Park, MD 20742. *Harmonic maps, pleated surfaces, and the asymptotic structure of the SL(2,C) character variety of a surface group.* Preliminary report.

The topic of this report is the asymptotic structure of the SL(2,C) character variety of a closed surface group. Recent work has given a precise description of the large scale behavior of solutions to the Hitchin equations in terms of certain limiting configurations. I will explain how these correspond in a precise way, via harmonic maps, to Bonahon's parametrization of pleated surfaces in hyperbolic 3-space by transverse and bending cocycles for a geodesic lamination. The result gives a geometric interpretation of the asymptotics of Hitchin's integrable system. This is joint work with Andreas Ott, Jan Swoboda, and Michael Wolf. (Received September 24, 2018)