1085-57-121 **Francis Bonahon*** (fbonahon@math.usc.edu), University of Southern California, Los Angeles, CA 90089, and **Guillaume Dreyer**, University of Notre Dame, Notre Dame, IN 46556. *A parametrization of the Hitchin component.*

A closed oriented surface S of genus $g \geq 2$ can be endowed with many hyperbolic metrics, and these form the *Teichmüller space* $\mathcal{T}(S)$. The Teichmüller space is diffeomorphisc to $\mathbb{R}^{6(g-1)}$, and the map associating its monodromy to a hyperbolic metric identifies $\mathcal{T}(S)$ to a component of the space of all group homomorphisms from the fundamental group $\pi_1(S)$ to the Lie group $\mathrm{PSL}_2(\mathbb{R})$. The space of group homomorphisms $\pi_1(S) \to \mathrm{PSL}_n(\mathbb{R})$ similarly has a preferred component $\mathcal{H}_n(S)$, called its *Hitchin component*. Hitchin proved around 1990 that $\mathcal{H}_n(S)$ is diffeomorphic to $\mathbb{R}^{2(g-1)(n^2-1)}$. We will describe a more geometric parametrization of the Hitchin component $\mathcal{H}_n(S)$, which is somewhat reminiscent of the parametrization of the Teichmüller space $\mathcal{T}(S)$ by Fenchel-Nielsen coordinates. (Received September 05, 2012)