1111-14-65 **Sean Dodd Lawton*** (seanlawton@gmail.com), George Mason University, Department of Mathematical Sciences, 4400 University Drive, Exploratory Hall, Fairfax, VA 22030. *Homotopy Groups of Character Varieties.*

Given a Lie group G (assumed real reductive) and a finitely generated group Γ, the moduli space of G-valued representations of Γ, denoted $\mathfrak{X}_\Gamma(G)$, is called the *G-character variety of* Γ. When Γ is the fundamental group of a manifold M, $\mathfrak{X}_\Gamma(G)$ is the moduli space of G-local systems on M. In this talk we will survey recent results concerning the homotopy groups of $\mathfrak{X}_\Gamma(G)$ when the fundamental group of M coincides with that of an open or closed surface, or a product of circles. Results in this survey reflect collaborations with I. Biswas, C. Florentino, and D. Ramras. (Received January 16, 2015)