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Daniele Alessandrini, Sara Maloni* (sm4cw@virginia.edu) and **Anna Wienhard**. *The geometry of symplectic quasi-Hitchin representations*. Preliminary report.

In this talk we will discuss quasi-Hitchin representations in $\mathrm{Sp}(4, \mathbb{C})$, which are deformations of Fuchsian (and Hitchin) representations which remain Anosov. These representations acts on the space $\mathrm{Lag}(\mathbb{C}^4)$ of complex lagrangian grassmanian subspaces of \mathbb{C}^4 . This theory generalises the classical and important theory of quasi-Fuchsian representation and their action on the Riemann sphere $\mathbb{CP}^1 = \mathrm{Lag}(\mathbb{C}^2)$. In the talk, after reviewing the classical theory, we will define Anosov and quasi-Hitchin representations and we will discuss their geometry. In particular, we show that the quotient of the domain of discontinuity for this action is a fiber bundle over the surface and we will describe the fiber. The projection map comes from an interesting parametrization of $\mathrm{Lag}(\mathbb{C}^4)$ as the space of regular ideal hyperbolic tetrahedra and their degenerations. (This is joint work in progress with Daniele Alessandrini and Anna Wienhard.) (Received August 31, 2019)