1067-53-2183 **Joanna K Nelson*** (nelson@math.wisc.edu), 480 Lincoln Dr, Madison, WI 53706. *The Geometry of Simple Singularities.* Preliminary report.

We recall that a simple singularity may be characterized as the absolutely isolated double point quotient singularity of $\mathbb{C}^2/G$, where $G \subset SU_2$. The variety $\mathbb{C}^2/G$ may be realized as a hypersurface $f_G^{-1}(0) \subset \mathbb{C}^3$. An associated object of interest is the link K of a simple singularity, given by $S^5 \cap f_G^{-1}(0)$, which is diffeomorphic to S^3/G. We explain the natural contact structures associated to both K and S^3/G, and demonstrate that these are contactomorphic without using open book decompositions. We also discuss the associated strong symplectic fillings of the link given by the Milnor fiber and minimal resolution. The author is currently working on computing the (linearized) contact homology of the link, and will discuss her progress thus far. The talk will also be tailored to the audience's knowledge of symplectic and contact geometry. (Received September 22, 2010)