1046-14-1394 **Elisha Peterson*** (`triathematician@gmail.com`) and **Sean Lawton** (`slawton@math.ist.utl.pt`). *Trace Diagram Recurrences and Central Functions of SL(2,C)-Character Varieties.* Preliminary report.

The coordinate ring of SL(2, $\mathbb{C}$)-character varieties may be studied in terms of a basis of *central functions*. These functions are usually defined algebraically, but they can also be defined using the graphical calculus of trace diagrams. This diagrammatic approach is more useful for building intuition about the structure of the coordinate ring, and also simplifies computations. In this talk, we describe the central function basis and its diagrammatic depiction, and also show how a trace diagram recurrence formula gives rise to a generic algorithm for computing these functions. (Received September 16, 2008)