1131-57-54　　　　　**Francis Bonahon*** (`fbonahon@math.usc.edu`). *Miraculous cancellations for traces of 2-by-2 matrices.*

In earlier work, Helen Wong and the author discovered unexpected central elements in the Kauffman bracket skein algebra $\mathcal{S}^q(S)$ of a surface S, when the quantum parameter q is a root of unity. The talk will place these results in a more representation theoretic framework, involving the quantum group $U_q(\mathfrak{sl}_2)$ and its dual Hopf algebra SL_2^q. More precisely, the key ingredient involves certain miraculous cancellations for traces of $\mathcal{A}$-points of SL_2^q, which are 2-by-2 matrices whose entries take value in a non-commutative algebra $\mathcal{A}$. (Received June 27, 2017)