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Sachin Gautam* (gautam.42@osu.edu), Department of Mathematics, The Ohio State U., 231 W 18th Ave, Columbus, OH 43210, and **Valerio Toledano Laredo**. *Irreducible representations of elliptic quantum groups*.

In 1995 G. Felder introduced an elliptic R-matrix, which satisfies a dynamical version of the Yang-Baxter equation. The elliptic quantum group of $\mathfrak{sl}(n)$ is then defined in the same vein as the usual R-matrices give rise to quantum groups via the RTT formalism of Faddeev, Reshetikhin and Takhtajan.

In this talk I will present a generalization of Felder's construction, which works uniformly for any symmetrisable Kac-Moody algebra, analogous to Drinfeld's new presentation of Yangians and quantum affine algebras. I will also explain a method of constructing representations of the elliptic quantum group using q-difference equations. In particular, we obtain a classification of irreducible representations, in terms of elliptic analogues of Drinfeld polynomials.

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