1163-18-989   **Cain Edie-Michell*** (`cain.edie-michell@vanderbilt.edu`). *Symmetries of Modular Categories, and Quantum Subgroups.*

Since the problem was introduced by Ocneanu in the late 2000's, it has been a long-standing open problem to completely classify the quantum subgroups of the simple Lie algebras. This classification problem has received considerable attention, due to the correspondence between these quantum subgroups, and the extensions of WZW models in physics. A rich source of quantum subgroups can be constructed via symmetries of certain modular tensor categories constructed from Lie algebras. In this talk I will describe the construction of a large class of these symmetries. Many exceptional examples are found, which give rise to infinite families of new exceptional quantum subgroups. (Received September 14, 2020)