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*Bratteli and the morphisms of boundary seam algebras*

Temperley-Lieb algebras  $TL_n(q + q^{-1})$  are a well-known family of associative complex algebras introduced in 1971 in a mathematical physics context and studied with various ways. Two main tools of the studies of representations of those algebras are the diagrammatic definition and the cellular structure in the sense of Graham-Lehrer. One can alter and generalize the setting of Temperley-Lieb algebras to give birth to other structures that permit the study of different physical problems. In this talk, we will discuss the boundary seam algebras  $B_{n,k}(q + q^{-1})$ , a generalization by means of special idempotents introduced in 2015, by using the cellular approach. The structure of the generic  $q$  case will be shown and the first steps toward a systematic study of the critical  $q$  case will be presented.