

# BRAUER ALGEBRAS OF COMPLEX REFLECTION GROUPS

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ABSTRACT. Brauer algebras were introduced by Richard Brauer in 1937 as the dual object to orthogonal and symplectic groups in the context of Schur-Weyl duality. This original form of Brauer algebras was a natural extension of the algebra of the symmetric group. It took until 1988 for their structure to be completely described by Wenzl. Since then, many efforts have been made to define corresponding algebras for other types of Coxeter groups but also for complex reflection groups. In 2011, Chen gave a uniform definition of a Brauer algebra associated to every complex reflection group, encompassing many of the already existing algebras. We will review, in this talk, the background that led to this general Brauer-Chen algebra and discuss some results concerning its structure.