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We investigate the question of whether any  $d$ -colorable simplicial  $d$ -polytope can be octahedralized, i.e., it can be subdivided to a  $d$ -dimensional geometric cross-polytopal complex. We give a positive answer in dimension 3, with the additional property that the octahedralization introduces no new vertices on the boundary of the polytope. The talk is based on joint work with Lorenzo Venturello. (Received September 10, 2019)