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Torus orbits inside matrix Schubert and brick varieties

Given a projective algebraic variety X with an action of a torus T consider the closure of the torus orbits a point in the variety. If we start with a general point then its orbit closure is the toric variety of the moment polytope of the variety. This polytope allows us to verify if X is a toric variety with respect to T. We present this framework in the context of matrix Schubert varieties and brick varieties.