

Let  $(M^{2n}, \omega)$  be a compact symplectic manifold of dimension  $2n$ . Assume that a  $(n-1)$ -dimensional torus  $T^{n-1}$  acts effectively on  $(M^{2n}, \omega)$  in a Hamiltonian fashion with moment map  $\phi: M^{2n} \rightarrow \text{Lie}^*(T^{n-1})$ . Then  $(M^{2n}, \omega, T^{n-1}, \phi)$  is called a complexity one space.

In this talk, we focus on a specific class of complexity one spaces, namely those which are tall and monotone. We give a complete classification of these spaces for  $n = 3$  and show that the  $T^2$ -action can be extended to an effective Hamiltonian  $T^3$ -action in that case. This talk is based on joint work with Silvia Sabatini and Daniele Sepe.