Let $M$ be a symplectic manifold and let $\sigma$ be an antisymplectic involution on $M$. The real locus is the fixed point set of the involution. It is a Lagrangian submanifold. Suppose also $M$ is equipped with the Hamiltonian action of a torus $T$. It is possible to define a compatibility between $T$ and $M$. This set of ideas was introduced in a 1983 paper by Hans Duistermaat.

In this talk I will describe some developments in this field since Duistermaat’s foundational paper. My contributions in this area are joint work with Liviu Mare, and (in a separate project) with Nan-Kuo Ho, Khoa Dang Nguyen and Eugene Xia. (Received September 18, 2016)