

A holomorphic triple  $(E_1, E_2, \varphi)$ , on a smooth projective curve  $C$  over the complex numbers, consists of a pair of coherent sheaves  $E_1, E_2 \in \text{Coh}(C)$  and a morphism  $\varphi: E_1 \rightarrow E_2$ . We consider the abelian category  $\text{TCoh}(C)$  of holomorphic triples. The aim of this talk is to study Bridgeland stability conditions on  $D^b(\text{TCoh}(C))$ , including the stability conditions on  $\text{TCoh}(C)$  studied by Bradlow and García-Prada. Using semiorthogonal decompositions on  $D^b(\text{TCoh}(C))$ , we describe the stability manifold  $\text{Stab}(\text{TCoh}(C))$ . This is joint work with Eva Martínez Romero and Arne Rüdiger.