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*Moduli of coherent systems*

Coherent systems are the analogous for higher classical linear systems. That is, a coherent system of type  $(n, d, k)$  is a pair  $(E, V)$  where  $E$  is a holomorphic bundle of rank  $n$  and degree  $d$  and  $V$  is a linear subspace of its space of holomorphic sections of dimension  $k$ . There is a stability notion for a pair  $(E, V)$ , distinct from the stability of the bundle  $E$ . The natural definition of such stability depends on a real parameter  $\alpha$  and leads to a finite family of moduli spaces of  $\alpha$ -stable coherent systems. In this talk we will describe such moduli spaces for certain values of  $(n, d, k)$ .