1105-14-156Eric R Sharpe* (ersharpe@vt.edu), Department of Physics MC 0435, 850 West Campus Drive,
Blacksburg, VA 24061. An introduction to heterotic mirror symmetry.

In this talk we will describe progress towards a generalization of mirror symmetry pertinent for heterotic strings. Whereas ordinary mirror symmetry relates, in its simplest incarnations, pairs of Calabi-Yau manifolds, the heterotic generalization relates pairs of holomorphic vector bundles over (typically distinct) Calabi-Yau's, satisfying certain consistency conditions. We will also outline the corresponding analogue of quantum cohomology, known as quantum sheaf cohomology. (Received September 16, 2014)