Abstract: The Verlinde bundles are constructed over the moduli space of curves by considering relative moduli spaces of vector bundles. Their Chern characters give rise to a cohomological field theory. In the talk, I will describe the geometry of these natural vector bundles, and will explain how Teleman’s work on semisimple cohomological field theories can be used to derive explicit formulas for their Chern characters in terms of tautological classes.

This is based on joint work with D. Oprea, R. Pandharipande, A. Pixton, and D. Zvonkine.