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Hannah Larson and **Ravi Vakil*** (rvakil@stanford.edu). *Characteristic classes of vector bundles on spheres and Bott periodicity: algebra, geometry, topology.*

Hannah Larson has recently completely described (integrally) the "characteristic classes" of vector bundles on \mathbf{P}^1 -bundles, in Chow. Bott periodicity relates vector bundles on a topological space X to vector bundles on $X \times S^2$: the "moduli space" BU of complex vector bundles is basically the same as the "moduli space" maps of a sphere to BU . I'm not a topologist, so I will try to explain an algebraic or geometric incarnation, in terms of vector bundles on the Riemann sphere. The algebro-geometric incarnation of Bott periodicity is actually motivated by important current questions in geometry. This is joint work in progress with H. Larson, who did the heavy lifting. (Received September 17, 2019)