1154-14-338　　　　　**Andrew Kobin*** (`ak5ah@virginia.edu`). *Root stacks in characteristic p.*

As stacks continue to become an essential part of a modern algebraic geometer's toolbox, researchers look to their local structure as a guide to their nature. Over the complex numbers, this local structure is called a complex orbifold, or 'orbit space of a manifold' under a cyclic group action. In this talk, I will describe an important construction, due to Cadman and independently to Abramovich-Graber-Vistoli, called a root stack which captures the notion of orbifold over an arbitrary field. Root stacks appear in lots of places, including in the classification of stacky curves in characteristic 0. After describing what is known, I will introduce a new construction, called an Artin-Schreier root stack, which allows for similar classification results in characteristic p. (Received September 01, 2019)