1126-78-254   **Alexey Sukhinin*** (`asukhini@uvm.edu`), Department of Mathematics and Statistics, University
of Vermont, Burlington, VT 05405. *Modeling of lasers with PT-symmetry.* Preliminary report.

Recently, a new family of lasers based on parity-time(PT) symmetry has been introduced. It is believed that such lasers have a potential for greater tunability and single-mode generation with higher purity. The principle of PT-symmetry transpires in the dynamical balance between optical gain and loss. In this talk, I discuss the mathematical models of various laser configurations and present preliminary analysis of these models. (Received January 15, 2017)