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Xander Faber* (awfaber@super.org). *Generalizing the Ax/Tate Theorem and Applications to Semi-Stable Reduction*. Preliminary report.

The Ax–Tate theorem (generalized by Sen) describes the fixed points of the action of $G_p = \text{Gal}(\bar{\mathbb{Q}}_p/\mathbb{Q}_p)$ on \mathbb{C}_p , the completion of an algebraic closure of \mathbb{Q}_p . The G_p -action naturally extends to an action on the Berkovich projective line over \mathbb{C}_p , and Bob Rumely and I have been working toward a complete description of the G_p -invariant locus in this more general setting. I will report on our progress, as well as on applications of our work for the theory of semi-stable reduction of dynamical systems. (Received January 24, 2018)