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Benjamin Hutz (bhutz@gc.cuny.edu), Ph.D. Program in Mathematics, Graduate Center of CUNY, 365 Fifth Avenue, New York, NY 10016, and **Michael Tepper*** (mlt16@psu.edu), Division of Science and Engineering, Penn State Abington, 1600 Woodland Road, Abington, PA 19001. *Multiplier Spectra and the Moduli Space of Degree 3 Morphisms on \mathbb{P}^1 .*

The moduli space of degree d morphisms on \mathbb{P}^1 has been studied a great deal. McMullen showed that there is a finite-to-one correspondence (over \mathbb{C}) between classes of morphisms in the moduli space and the multipliers of the periodic points. For degree 2 morphisms Milnor (over \mathbb{C}) and Silverman (over \mathbb{Z}) showed that the correspondence is an isomorphism. Here we will analyze the two cases: polynomial maps of any degree and rational maps of degree 3. (Received September 18, 2011)