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Igors Gorbovickis* (igors.gorbovickis@utoronto.ca). *Parameterizing degree n rational maps by multipliers of periodic orbits.*

It was suggested by John Milnor to use the multipliers of the fixed points to parameterize the moduli space of degree 2 rational maps of the Riemann sphere. In this talk we will discuss an attempt to use multipliers of periodic orbits as the parameters on the moduli space of degree n polynomial or rational maps. We will show that at its generic point, the moduli space of degree n polynomial maps can be locally parameterized by the multipliers of $n - 1$ arbitrary distinct periodic orbits. This is equivalent to the statement that these multipliers considered as algebraic functions on the moduli space, are algebraically independent over \mathbb{C} . Further, we will discuss a generalization of the above result to the case of degree n rational maps. (Received September 16, 2014)