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Giulio Tiozzo*, 40 St George St, Toronto, ON M5S 2E4, Canada. *Random walks on the Cremona group.*

The Cremona group of birational transformations of $\mathbb{C}\mathbb{P}^2$ is a classical object in algebraic geometry. In the last decade, incredible progress (by Cantat, Lamy and several others) has been made by combining complex dynamics and geometric group theory, using the action of the Cremona group on an infinite dimensional hyperbolic space. In new work with J. Maher, we use these techniques to study random compositions of birational maps. For instance, we prove that the dynamical degree of random Cremona transformations grows exponentially fast, we give a characterization of the Poisson boundary, and we produce using random walks many different normal subgroups. (Received August 26, 2018)