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Abstract. We will first introduce some basic notions and results of the Julia-Fatou theory and study some examples of holomorphic endomorphisms and meromorphic maps in projective spaces. Next, we will develop the properties of the equilibrium measure and Green currents (entropy, statistical properties, equidistribution problems...). The main tool which is used is pluripotential theory (positive closed currents, plurisubharmonic functions...) will be introduced. If time permits, we will discuss quickly the dynamics of polynomial automorphisms of \mathbb{C}^k which are different and still far from being well understood when the dimension k is large. This is an important example of birational maps in \mathbb{P}^k .
