

This monograph studies moduli problems associated to algebraic dynamical systems. It is an expanded version of the notes for a series of lectures delivered at a workshop on *Moduli Spaces and the Arithmetic of Dynamical Systems* at the Bellairs Research Institute, Barbados, in 2010.

The author's goal is to provide an overview, with enough details and pointers to the existing literature, to give the reader an entry into this exciting area of current research. Topics covered include:

- (1) Construction and properties of dynamical moduli spaces for self-maps of projective space.
- (2) Dynatomic modular curves for the space of quadratic polynomials.
- (3) The theory of canonical heights associated to dynamical systems.
- (4) Special loci in dynamical moduli spaces, in particular the locus of post-critically finite maps.
- (5) Field of moduli and fields of definition for dynamical systems.