

# ITERATED ULTRAPOWERS AND AUTOMORPHISMS

ALI ENAYAT

Topic #1: *Nonstandard Theories and Models, and Foundations of Nonstandard Methods.*

We survey some recent developments in the study of automorphisms of nonstandard models of foundational theories (arithmetic, analysis, and set theory). In particular, we shall focus on a unified framework for the study of automorphisms of models of foundational theories based on certain adaptations of the classical machinery of iterated ultrapowers.

DEPT. OF MATHEMATICS AND STATISTICS, AMERICAN UNIVERSITY, WASHINGTON DC, USA

*E-mail address:* `enayat@american.edu`