The Monadic Grzegorczyk Logic Mashiath Khan (mashyk@nmsu.edu) New Mexico State University

We develop a semantic criterion for determining whether a given monadic modal logic axiomatizes the one-variable fragment of a predicate modal logic. We show that the criterion applies to the monadic Grzegorczyk logic MGrz, thus establishing that MGrz axiomatizes the one-variable fragment of the predicate Grzegorczyk logic QGrz. This we do by proving the finite model property of MGrz, which is achieved by strengthening the notion of a maximal point of a descriptive MGrz-frame and by refining the existing selective filtration methods.