

1014-03-1028 **Slawomir Solecki***, 1409 W. Green St., Department of Mathematics, University of Illinois,
Urbana, IL 61801. *Automatic Continuity of Group Homomorphisms.*

I will present several results on continuity of homomorphisms between Polish groups. Some of these results involve initial regularity assumptions on homomorphisms, like universal measurability. This happens if the domain group is amenable at 1 (for example, locally compact, or abelian, or a countable product of locally compact amenable groups). Other such results do not involve regularity assumptions. This is so for groups such as the homeomorphism group of the Cantor set or the automorphism group of the rationals. I will explain connections of the work above with classical theorems of Weil, Pettis, and Christensen and some newer results of Kechris and Rosendal.

A part of the talk will be based on a joint work with Christian Rosendal. (Received September 26, 2005)