

1125-03-1537

Simon Cho* (seamcho@math.upenn.edu). *On a variant of continuous logic.*

Continuous logic has found successful applications to e.g. ergodic theory in showing that certain convergence results hold uniformly in a precise sense, as described in the paper by J. Avigad and J. Iovino. This talk will describe a variant of continuous logic (which we call *geodesic logic*) which relaxes some of the continuity requirements of continuous logic and replaces them with ‘linear structures’ designed to mimic e.g. vector space structures of Banach spaces. Using this logic, we are able to apply the Avigad-Iovino approach to examples in the fixed point theory of Banach spaces involving functions which are a priori discontinuous, to obtain uniformity results in the same sense as above.

(Received September 17, 2016)