1116-43-2938   **Benjamin Willson*** (`bd-willson@wiu.edu`). *Fixed point theorem for hypergroups with application to showing the existence of a Haar measure.*

This talk will present some fixed point theorems of hypergroups related to translation invariant means on function spaces.

In particular, the existence of a left invariant mean on the space of weakly right uniformly continuous functions is equivalent to certain actions of the hypergroup having fixed points.

Using this fixed point property, we will show the existence of a Haar measure for certain hypergroups. (Received September 23, 2015)