Alejandro Maass. Variations on recurrence.

**Abstract.** Recurrence properties of systems and associated sets of integers that suffice for recurrence are classical objects in topological dynamics. We show that sets of Bohr recurrence (meaning sets of recurrence for rotations) suffice for recurrence in nilsystems. Additionally, we prove an extension of this property for multiple recurrence in affine systems. This is a joint work with Bernard Host and Bryna Kra.