# UCCS Mathematics Colloquium

## Thursday, February 25$^{th}$
## 12:30 pm – 1:30 pm
(Refreshments at 12:15)
## UC Room 307

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## Conjugation of injections by permutations

**Abstract:** Let X be a countable infinite set, and S(X) the group of all permutations of X. A classical theorem of Ore says that every element of S(X) can be expressed as a product of two conjugates of some (other) permutation. Another, due to Schreier and Ulam, says that S(X) has exactly four normal subgroups. I will talk about generalizing these two results to I(X), the semigroup of all injective maps from X to itself.