

# WiOpt 2016 – Invited Talk

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**Title:**

Competition with Tiered Spectrum Sharing

**Abstract:**

The traditional approach of clearing and reallocating wireless spectrum is becoming increasingly difficult. This has led to much interest in new approaches for sharing spectrum among different users, including the three-tiered model currently being developed for the 3.5 GHz band. In this model, commercial service providers (SPs) are allowed to access government spectrum in one of two tiers: a Priority Access (PA) tier in which a SP holds a license giving it priority to use an available channel and a Generalized Authorized Access (GAA) tier, which does not require a license but requires its users to not interfere with PA users. The proposed rules for 3.5 GHz allow for a mix of these licensing schemes on different channels within the band. In this talk we seek to understand how these different tiered sharing effect the competition among SPs for customers and the resulting economic welfare.

This is joint work with Chang Liu.