

**Speaker (Konuşmacı)**

Carmelo Antonio Finocchiaro, University of Catania

Title (Başlık)

Some New Perspectives in Studying Spectral Spaces

Abstract (Özet)

Prime spectra of commutative unitary rings and, in general, spectral spaces play a central role in Commutative Ring Theory and Multiplicative Ideal Theory. A relevant class of spectral spaces is that of Riemann-Zariski spaces of valuation domains of a field, and several topological investigations on such spaces of valuation rings

put new light on some algebraic properties of integrally closed domains; moreover relevant classes of rings can be characterized in topological terms by using a spectral topology on the space of their ideals. Furthermore, prime ideals and prime spectra are key tools in Algebraic Geometry, being them foundation of Scheme Theory. However, a "spectrum" can be attached to several algebraic structures: commutative monoids, noncommutative rings, abelian l-groups, etc. In this talk we will present some reasons for

this ubiquity of spectral spaces, and we will give a general framework in order to study this kind of questions, that of multiplicative lattices.

We will discuss some results of a paper jointly written with A. Facchini and G. Janelidze.