HACETTEPE ÜNİVERSİTESİ MATEMATİK BÖLÜMÜ

GENEL SEMİNERİ

(HACETTEPE MATHEMATICS GENERAL SEMINAR)

Tarih (Date) : 04.03.2015, Çarşamba (Wednesday)
Saat (Time): 15:00
Yer (Place): Yaşar ATAMAN Seminer Salonu

Konuşmacı (Speaker): Doç. Dr. Faruk POLAT (Çankırı Karatekin University)

Başlık (Title) : On Spaces Derivable from a Solid Sequence Space and a Non-negative Lower Triangular Matrix

Özet (Abstract) : The scalar field will be either the real or complex numbers. Suppose that $\boldsymbol{\lambda}$ is a solid sequence space over the scalar field and A is an infinite lower triangular matrix with non-negative entries and positive entries on the main diagonal such that each of its columns is in $\boldsymbol{\lambda}$. For each positive integer k, the k^{th} predecessor of $\boldsymbol{\lambda}$ with respect to A is the solid vector space of scalar sequences x such that $A^k |x|$ is an element of $\boldsymbol{\lambda}$. We denote this space by $\boldsymbol{\Lambda_k}$ and $\boldsymbol{\lambda}$ itself will be denoted by $\boldsymbol{\Lambda_0}$. Under reasonable assumptions, these spaces inherit some topological properties from $\boldsymbol{\lambda}$. We are interested in a projective limit of the infinite product of the $\boldsymbol{\Lambda_k}$ consisting of sequences of sequences $(x^{(k)})$ satisfying $A\,x^{(k)} = x^{(k-1)}$ for each $k>0$. We show that for interesting classes of situations including the cases when $\boldsymbol{\lambda} = l_p$ for some $p>1$ and A is the Cesaro matrix, the space of our interest can be non-trivial.

NOT: Konuşma sonunda çay ve pasta ikramı olacaktır.
(P.S. Tea and cookies will be served after the talk.)