ABSTRACT No. : GET1

CONNECTEDNESS OF THE FINE TOPOLOGY

***V. Jindal, **A. Jindal**
***Department of Mathematics, MNIT Jaipur, Jaipur, Rajasthan, India, vjindal.maths@mnit.ac.in**
*****Department of Mathematics, IIIT Kota, Jaipur, Rajasthan, India , jindalanubha217@gmail.com***

In this talk, we study the connectedness of the fine topology on C(X,Y), the set of all continuous functions from a Tychonoff space X to a metric space (Y,d). In order to understand connectedness of the space $C_f(X,Y)$in a wider perspective, we first study the quasicomponents of the space $C_f(X,Y)$for a metric space (Y,d). Our study shows that pseudocompactness and relative pseudocompactness play a vital role in the study of connectedness of the space $C_f(X,Y)$We also determine the components of the space $H(R^n)$, of all self homeomorphisms on the n-dimensional Euclidean space R^n, where $H(R^n)$ is considered as a subspace of the space $C(R^n, R^n)$ equipped with the fine topology.

ABSTRACT No. : GET2

WEAK AND STRONG FORMS OF REGULAR OPEN SETS

***V. Amsaveni,** M.Anitha , ***A.Subramanian**
***Dept.of Mathematics, Dr.G.U.Pope College of Education, Sawyerpuram, TamilNadu, India**
*****Dept. of Mathematics, Rani Anna Govt. College, Tirunelveli, TamilNadu, India**
******Dept. of Mathematics, M.D.T.Hindu College, Tirunelveli, TamilNadu, India***

The notions of θ-open sets and δ-open sets in a topological space were studied by Velicko. In this paper several versions of nearly open sets have been introduced and studied by mixing the concepts of θ-Open sets and regular open sets and by mixing the concepts of δ-open sets and regular open sets.

ABSTRACT No. : GET3

HYPERGRAPH TOPOLOGY

Deepthi Chandran R,** P B Ramkumar

***LBS Institute of Technology for Women, Thiruvananthapuram, India, deepthii.c@gmail.com**
***** Rajagiri School of Engineering & Technology, Cochin, India,**
ramkumar_ pb@rajagiritech.edu.in*

Consider a hypergraph H with vertex set V = $\{v_1, v_2,, \ldots v_n,\}$ and hyperedge set E = $\{e_1, e_2, \ldots e_m,\}$. A neighbourhood of a vertex v_i, is defined as the collection of vertices in edges to which v_i belongs. Hence every edge is a neighbourhood. A hypergraph topology is a family T of neighbourhood of vertices in V which satisfies the following conditions

- $\varphi, V \in T$
- If N(vi),N(vj) ∈ T then N(vi)∩N(vj) ∈ T
- If N(vi) ∈T for each i∈I then $\cup_{i \in I}$∈ T

The elements of T are called open sets. Thus a topology T defined on a hypergraph H is called hypergraph topological space, denoted by (H,T). Also for a subhypergraph, similarly a subhypergraph induced topology is defined. The concept of closed sets, continuity, compactness and connectedness and their properties are discussed. This is further extended to homeomorphism.