Abstract No : NST9

SOFT α-γ-OPEN SETS IN SOFT TOPOLOGICAL SPACES

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In this paper the notion of soft α-γ-open sets in soft topological spaces together with its corresponding interior and closure operators are introduced. Further the concept of soft α-γ-T_i spaces are introduced and established the relationship between the spaces.

Abstract No:OAS1

A COMPARATIVE STUDY OF SAMPLING CRITERIA FOR CURVE RECONSTRUCTION PROBLEM

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Curve reconstruction is the reverse engineering process of extracting the curve, given a point set sampled from it. This problem has gained importance with the advent of scanning devices such as range scanners, LIDAR, MRI etc. Because of its large applicability in many engineering problems, it has gained significant attention by researchers. Many algorithms have been proposed for the curve reconstruction problem, but all of these algorithms make an assumption about the sampling density of the point set. The definition of sampling density differs based on criteria such as whether the curve is closed or open, manifold or non-manifold, noisy or noiseless data etc. In this paper, we present a comparative study of different sampling criteria used in the curve reconstruction literature based on these categories. For a point set, sampled from a closed curve, a standard method of capturing the sampling of the curve is called −sampling. Based on this sampling criteria the proof of correctness and termination of the algorithm are established. We present a comparative study

of this sampling criteria with other sampling criteria. In practice, given a point set P sampled from a curve, the right choice of algorithm to reconstruct the underlying curve depends upon the question that which sampling criteria is followed by P. As per our knowledge, determining the sampling criteria satisfied by a given point set is computationally challenging. For example, to detect whether P is − sample, one will require to compute the local feature size, which is algorithmically as difficult as the curve reconstruction problem itself. We pose it as an open problem, whether computational topological techniques can provide an efficient solution to detect the sampling criteria followed by a given input point

Abstract No:OAS2

BAROTROPIC FLUID DISTRIBUTION IN BIANCHI TYPE VI0 STRING COSMOLOGICAL MODEL IN GENERAL RELATIVITY

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A Barotropic fluid distribution in Bianchi VI_0 String Cosmological Model in General Relativity is investigated. To get the deterministic models of the universe, two conditions are assumed: (i) scalar expansion is proportional to shear scalar which leads to n $A = B^n$ and (ii) bulk viscosity is inversely proportional to expansion scalar which leads to $\zeta\theta = \zeta$ where θ is expansion scalar and   is bulk viscosity. It is observed that the model is shearing and nonrotating as the universe is expanding. Some physical and geometrical properties of the model are also discussed

Abstract No:OAS3

APPLICATION OF BIG DATA ANALYTICS IN SMART CITIES

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A smart city is said to be an urban area which is having effective method of data collection and efficient usage of it. Smart city concept focuses on developing the economy rate, sustainable developement and quality of life for the citizens. The idea of smart city which

concentrates on implementing advanced technologies in various sectors and services like getting energy resources, medical and healthcare and advancement in transport activities. These things will be achieved by improving employment opportunities and utilization of the available resources. The effective technology that supports for the concept is big data analytics method. The usage of data which is collected in time-to-time from various fields which helps in making the process of decision making for the smart cities. Problem analysing and recovery is found to be easy when having the collection of previous data. In this paper, a software design is proposed to support big data analytics for the idea of smart cities. Service-oriented architecture design is used to combine various technologies such as cloud computing and edge computing to helps in different analytics optimization which needs for effective usage of Big data. This SOA architecture provides various functions to use big data and its capabilities. With this approach, big data applications will be accessed effectively and the various services that are needed for the smart city concept.