INTRODUCTION TO CONTINUUM THEORY AND PROJECTIVE FRAÏSSÉ THEORY

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ABSTRACT

A continuum is a compact connected (separable) space. I will first discuss a number of properties (such as indecomposability, homogeneity) and examples of 1-dimensional continua. These are solenoids, Knaster continua, Menger universal curve, pseudo-arc, and many more.

Then I will present the projective Fraïssé limit construction introduced by Irwin and Solecki. They applied it to give a new construction of the pseudo-arc and to show projective homogeneity and projective universality of that space. Since then this construction found applications in studying many other continua and their homeomorphism groups.