Mathematics Department
University of Fribourg

Tuesday, 14/11/2017

Time: 12:15 pm
Physics building
Lecture room 2.52

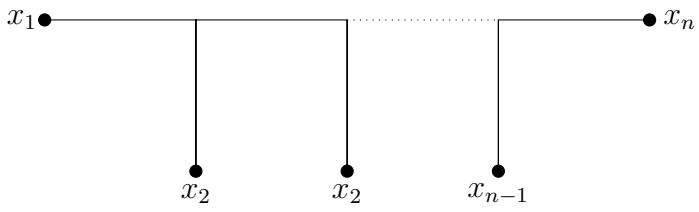
Mathematikon

Linard Hoessly

Introduction to fundamental polytopes of tree-like metric spaces

Abstract:

The fundamental polytope corresponds to a polytope associated to a finite metric space and was introduced for geometric reasons by Vershik. We consider this object in the case of finite split-pseudometric spaces. These spaces come from research in phylogenetics and we define a hyperplane arrangement associated to every such pseudometric. This allows to use the combinatorics of its underlying matroid in order to compute the face numbers of fundamental polytopes and Lipschitz polytopes of tree-like metrics.



The n-caterpillar graph