
BERN-FRIBOURG GRADUATE SEMINAR

a seminar for Master and PhD students

Thursday 3rd November, 2022: 17:15 - 18:00

Room 2.52, Perolles 08, Fribourg

DAMARIS MEIER

University of Fribourg

Injective metric spaces

Abstract

Injective metric spaces share many important properties with spaces of nonpositive curvature. While the terminology originates in category theory, injective metric spaces find applications in fields such as theoretical computer science and biology. A construction by Isbell in 1964, which was eventually forgotten before being independently rediscovered by Dress in 1984, shows that for any metric space X there is a "minimal" injective metric space $E(X)$ containing X , called the injective hull (or tight span) of X .

In this talk, we will see examples and properties of injective metric spaces and injective hulls of metric spaces. If time admits, I will show how Isbell constructed such an injective hull.