



Iowa Colloquium on
Information, Complexity, and
Logic

November 7th Meeting

Location: Iowa State University in Pearson 3131

[Map of Iowa State University](#)

[Parking Map](#)

Time: Thursday, November 7th at 3:40 PM

Speaker: Christopher Porter (Drake University)

Title: New developments on algorithmically random closed sets

Abstract: In this talk, I will discuss recent joint work with Adam Case on algorithmically random closed subsets of Cantor space. In earlier work, Cenzer and Weber studied the behavior of various biased random closed sets under unions and intersections, showing that these operations preserve randomness in the sense that performing such an operation on a pair of relatively random closed sets results in a closed set that is random with respect to the measure induced by the operation. We obtain partial converses of these results, answering the following question: Given a closed set that is random with respect to a certain biased measure, when can it be obtained as the union or intersection of a pair of relatively random closed sets (that are random with respect to an appropriately chosen measure)? In addition, I will discuss some results on multiple intersections of random closed sets that have emerged from this work.

Parking Information: It is recommended that visitors use the Memorial Union Parking Ramp.