

Colloquium

**Eric Hehner,
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**Thursday, September 25th
1:00 p.m., EN-2022**

A Probability Perspective

Abstract:

This talk could be called "probability meets programming". It draws together four perspectives that contribute to a new understanding of probability and solving problems involving probability. The first is the Subjective Bayesian perspective that probability is affected by one's knowledge, and that it is updated as one's knowledge changes. The problem of assigning prior probabilities disappears according to the Information Theory perspective, which equates probability with information. The main point of the talk is that the formal perspective (formalize, calculate, unformalize) is beneficial to solving probability problems. And finally, the programmer's perspective provides us with a suitable formalism. To illustrate the benefits of these perspectives, the previously open problem of the two envelopes is completely solved.

Formal Aspects of Computing, v.23 n.4 p.391-419, 2011.
<http://www.cs.utoronto.ca/~hehner/ProPer.pdf>