

”A Simulation Platform to Quantify Emergency Department Patient Flow”

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Abstract:

Hospital-based emergency departments (EDs) are struggling to provide timely care to a steadily increasing number of unscheduled ED visits. Dwindling compensation and rising ED closures dictate that meeting this challenge demands greater operational efficiency. However, when compared to other areas within the healthcare system, EDs present a unique environment of competing priorities, limited resources, and a wide variety of patients demanding care. ED managers face a wide variety of options when deciding how to improve efficiency, and there is a growing consensus that understanding the complexity of patient flow dynamics requires the support of mathematical and computational models.

In this talk, I will give a brief, accessible description of ED process of care, and identify common causes of long wait times. I will then introduce a novel simulation tool we have developed in collaboration with UF Shands and demonstrate the model using our online interface.

(<http://spark.rstudio.com/klopiano/EDsimulation/>)