

SBU Math Club Faculty Talk

Prof. Joseph Mitchell

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Physics building room P116 at 1pm

A famous problem posed by Victor Klee in the early 1970's is the Art Gallery Problem: How many points ("guards") are sufficient to place within a simple polygon P having n vertices so that every point of P is "seen" by at least one guard? This problem falls into a rich class of computational geometry problems that ask one to optimally cover a domain. We discuss several interesting mathematical and algorithmic questions that arise in this class, both in the case of stationary guards and mobile robotic guards. The problems are simple to state, easy to visualize, but often very challenging to solve.