

Abstract Submitted
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Measuring Coefficients of Friction for Materials Commonly Used in Theatre ROBERT MENTZER, ERIC MARTELL, Millikin University — While designing a stage setup for a theatrical presentation, designers must consider equipment, materials, cost and manpower, and we can use physics to simplify and enhance the process. Unfortunately, there is a lack of information about the properties of materials commonly used in theatre. The objective of this research was to determine the coefficients of static and kinetic friction for several materials commonly used in theatrical scene construction and the coefficients of rolling friction for a series of commonly used casters. Materials of known coefficients were tested to confirm the accuracy of the experimental process. Data was collected using a sled style apparatus and LabVIEW software. Data was analyzed in mass volumes using Microsoft Excel spreadsheets and macros. This research was performed as a part of the Physics of Theatre project, a joint collaboration between Millikin University and the University of Illinois at Urbana-Champaign, and was supported in part by Millikin, UIUC, and the United States Institute for Theatre Technology.

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