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**The Ellie Caulkins Opera House: A study in simplified predictive modeling**

Robert Mahoney  
Robert F Mahoney & Associates, 310 Balsam Avenue, Boulder, CO 80304, USA

Recent advances in predictive modeling and experience in understanding and interpreting the significance of the data provided by such models have given rise to a spate of wonderful new performance spaces. However the models - whether computer models or physical scale models - demand an investment in time, money and organizational resources that are not always available due to the funding and political climate surrounding some projects. In order to secure public funding for the Ellie Caulkins Opera House in Denver, CO USA, the architectural design team had to combine elements of modeling from both the recent past and decades ago in order to present to public authorities a definitive and detailed design and an equally firm estimate of construction costs quickly and with little investment. This paper discusses how the predictive techniques of the last half-century were synthesized to provide a confident estimate of the proposed design's acoustical character as well as definitive construction information.