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**Experimental and Computer analyses of Thunder Actuators.**<sup>1</sup> JA-COB SALAZAR, GILBERTO CAMARGO, GEVALE ASHFORD, TIMOTHY USHER, California State University San Bernardino — High displacement, piezoelectric **THUNDER** actuators have numerous applications such as morphable wing technology, robotics, etc. These applications will be greatly enhanced by robust computer models, based on a clear understanding of the underlying physics and rooted in experimental data. With this in mind the main goal of our study is to compare experimental data of performance with computer models. Five different THUN-DER actuator models were tested and simulated. All five models showed percent differences between experiment and simulation ranging from 0.16% to 36%.

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