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# Nonlinear Oscillations of Energy Harvester Arrays

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**Abstract:**

As alternatives to wind turbines, energy harvesters composed of either an airfoil or a bluff body are considered. A piezoelastic cantilever is attached to the considered bluff body or airfoil. Computational studies are conducted and qualitative changes observed with respect to quasi-static variation of control parameters such as wind speed are presented. The numerical results obtained are compared to available experimental results. The reduced-order models developed in this work and the results obtained can be a basis for developing energy harvesters at low wind speeds as well as for terrains that may not be best suited for use of wind turbines.