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פרופ' דן גבעולי

הקתדרה להנדסה ע"ש לורנס ומרי פלדמן
הפקולטה להנדסת אוירונטיקה וחלל

Computational methods in structural dynamics and acoustics

Research for MSc and PhD students
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We develop new computational methods, and improve existing methods, for solving various problems related to structural dynamics and wave propagation in aerospace structures and acoustic media.

Examples topics include:

1. Damage identification in elastic structures using wave methods;
2. Computational methods for the solution of various “inverse wave problems”;
3. Methods of mixed-dimensional modeling of structures (e.g., patching 3D and 2D finite element models into a hybrid model) ;
4. Numerical methods for the solution of acoustic problems in unbounded domains (e.g., underwater acoustics);
5. Various model reduction methods in structural dynamics and acoustics;
6. And more...