

Analysis of massless elastic chains with servo controlled joints.

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Analysis of Massless Elastic Chains With Servo Controlled Joints

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Abstract

The lumping approximation used frequently for dynamic analysis of distributed parameter systems facilitated for a class of flexible systems by a technique using 4 \tilde{A} — 4 coordinate transformation matrices to account for the deflection of elastic elements under load. This approach is used to develop the linear equations of spatial motion for a system of two rigid masses connected by a chain with arbitrary number of massless beams and controlled joint rotations.

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