

## Accepted Manuscript

A Novel Computer-Oriented Dynamical Approach with Efficient Formulations for Multibody Systems Including Ignorable Coordinates

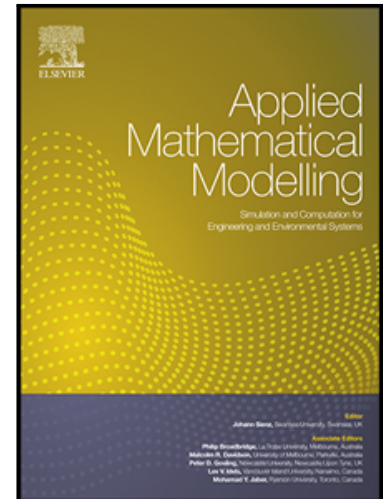
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**Research Highlights:**

- Minimum number of equations for systems possessing ignorable coordinates.
- Derivation of motion equations for unconstrained or constrained mechanical systems.
- Use of generalized speeds as motion variables and employing the matrix notation.
- Better satisfaction of the motion constraints compared to conventional methods.
- Low computational errors during numerical integration.

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