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Featherstone's algorithm

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Featherstone's algorithm is a technique used for computing the effects of forces applied to a structure of joints and links (an "open kinematic chain") such as a skeleton used in ragdoll physics.

The Featherstone's algorithm uses a reduced coordinate representation. This is in contrast to the more popular Lagrange multiplier method, which uses maximal coordinates. Brian Mirtich's PhD Thesis has a very clear and detailed description of the algorithm. Baraff's paper "Linear-time dynamics using Lagrange multipliers" has a discussion and comparison of both algorithms.

References   [edit]

- Featherstone, R. (1987). *Robot Dynamics Algorithms*. Boston: Kluwer. ISBN 0-89838-230-0.

External links   [edit]

- The Moby rigid body dynamics simulator contains an implementation of Featherstone's algorithm
- Source code for implementation of Featherstone's algorithm
- Description and references
- Mirtich's Thesis
- Baraff's Lagrange multiplier method
- Roy Featherstone's home page

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