

## Felix Zajac

Professor (Research) of Mechanical Engineering and of Orthopaedic Surgery,  
Emeritus

### Bio

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#### ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Mechanical Engineering

### Publications

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#### PUBLICATIONS

- **All joint moments significantly contribute to trunk angular acceleration** *JOURNAL OF BIOMECHANICS*  
Nott, C. R., Zajac, F. E., Neptune, R. R., Kautz, S. A.  
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- **Merging of Healthy Motor Modules Predicts Reduced Locomotor Performance and Muscle Coordination Complexity Post-Stroke** *JOURNAL OF NEUROPHYSIOLOGY*  
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2010; 103 (2): 844-857
- **Author's Response to Comment on "Contributions of the individual ankle plantar flexors to support, forward progression and swing initiation during walking" (Neptune et al., 2001) and "Muscle mechanical work requirements during normal walking: The energetic cost of raising the body's center-of-mass is significant" ( ).** *Journal of biomechanics*  
Neptune, R. R., Zajac, F. E., Kautz, S. A.  
2009; 42 (11): 1786-1789
- **Effect of equinus foot placement and intrinsic muscle response on knee extension during stance** *GAIT & POSTURE*  
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Higginson, J. S., Zajac, F. E., Neptune, R. R., Kautz, S. A., Delp, S. L.  
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- **Biomechanics and muscle coordination of human walking Part II: Lessons from dynamical simulations and clinical implications** *GAIT & POSTURE*  
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- **Biomechanics and muscle coordination of human walking - Part I: Introduction to concepts, power transfer, dynamics and simulations** *GAIT & POSTURE*  
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- **Mutability of bifunctional thigh muscle activity in pedaling due to contralateral leg force generation** *JOURNAL OF NEUROPHYSIOLOGY*  
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- **Understanding muscle coordination of the human leg with dynamical simulations** *JOURNAL OF BIOMECHANICS*  
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