

**Sixth Annual Winter Workshop on Neuromechanics and Dynamics of Locomotion**  
**Tulane University - New Orleans, Louisiana**  
**January 19 – 20, 2017**

**Lavin Bernick Center for University Life (building 29) - Kendall Cram Room**

<b>Thursday 1/19</b>				
			<b>Institution</b>	
8:30	8:45	Lisa Fauci	Tulane University	Introduction and Welcome
8:45	9:30	Kathleen Hoffman	University of Maryland, Baltimore	Putting the pieces together again: an integrated neural, muscle, and fluid model of lamprey swimming
9:30	10:15	Mimi Koehl	University of California, Berkeley	Using chemical signals to guide locomotion in a turbulent world
10:15	10:45			<i>Coffee Break/Discussion</i>
10:45	11:30	Simon Sponberg	Georgia Tech	Spike timing, precision, and sensory conflict in locomotor control
11:30	12:15	Silas Alben	University of Michigan	Optimizing snake locomotion
12:15	1:45			<i>Lunch</i>
1:45	2:30	Tonia Hseih	Temple University	Maintaining stability while losing limbs and traversing complex terrain
2:30	4:00	Posters		<i>Posters &amp; Coffee</i>
4:00	4:45	Noah Cowan	The Johns Hopkins University	Stabilizing the unstable brain

<b>Friday 1/20</b>				
			<b>Institution</b>	
9:00	9:45	Laura Miller	University of North Carolina at Chapel Hill	Dispersal and navigation of aerial plankton
9:45	10:30	John Jeka	University of Maryland	Complimentary mechanisms of balance control during walking
10:30	11:00			<i>Coffee</i>
11:00	11:45	Dan Koditscheck	University of Pennsylvania	Clocks and inner oscillators: re-examining the role of feedforward and feedback gait generators
11:45	1:30			<i>Lunch</i>
1:30	2:15	Tim Lewis	University of California, Davis	Neural mechanism of optimal limb coordination in crustacean swimming
2:15	3:30	Sarah Olson`	Worcester Polytechnic Institute	Sperm motility: biochemistry and hydrodynamics
3:30	3:30	Lisa Fauci	Tulane University	Closing Remarks

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<b>Poster Session</b>		
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Zahara Aminzare	Princeton University	Gait transitions in a phase oscillator model of insect central pattern generators
Woei-Nan Bair	University of Maryland	Using planar convariation of elevation angles to profile aging gait
Alexa Baumer	George Washington University	Investigating force transfer and the role of fluid in simplified models of human labor and delivery
Amy Buchmann	Tulane University	A Computational model of ciliary beating driven by a geometric switch
Lucia Carichino	Worcester Polytechnic Institute	Effect of calcium coupling models on sperm motility
Avik De	University of Pennsylvania	Reactive coordination: stabilizing common quadrupedal gaits without CPGs
Farzad Entemam	University of Maryland	The effect of walking speed on transient responses to visual perturbations
Daniel Floryan	Princeton University	Scaling the propulsive performance of fish-like swimming
Roseanna Gossmann	Tulane University	A simplified human birth model: translation of a rigid cylinder through a passive elastic tube
Alex Hoover	Tulane University	Flexibility and resonance in flapping propulsion: An elasto-hydrodynamic approach
Sung-Jae Hwang	University of Maryland	Compensatory balance strategies due to sensory perturbation during walking in children with cerebral palsy: Preliminary results
John Lagrone	Tulane University	Bacterial motility in confined environments
Manu Madhav	The Johns Hopkins University	Stabilizing the unstable brain
Forest Mannan	Tulane University	Singly-periodic stokes flow with a wall
Megan Matthews	Georgia Tech	Maneuverability v. flight stability in unsteady wakes
Jerry Mekdara	Tufts University	The active role of the dorsal fin during steady swimming in bluegill sunfish
Hoa Nguyen	Trinity University	Hydrodynamics of choanoflagellates
Michael Senter	University of North Carolina at Chapel Hill	Aerodynamics of parachuting in tiny insects
Lucy Sparty	Skidmore College	Investigating the network structure underlying turtle swimming and scratching
Anne Talkington	University of North Carolina at Chapel Hill	Optimizing flow in branching lymphatic vessals
Liz Tucker	Temple University	Compensatory patterns in bipedal lizards when running across a drop perturbation
Xiaolin Wang	University of Michigan	Dynamics and locomotion of snakes