The Time of Slip Onset During Stance Influences the Characteristics of the Unconstrained Perturbation

Corbin M. Rasmussen¹, Nathaniel H. Hunt¹

¹Department of Biomechanics, University of Nebraska at Omaha, Omaha, NE 68182
Email: cmrasmussen@unomaha.edu, Web: http://www.unomaha.edu/college-of-education/cobre/

**CONCLUSIONS**

- A significant strong, positive relationship was found between slip onset time and slip direction ($\rho(89)=0.659$, $p<0.001$; Fig. 4A)
- A significant strong, negative association exists between slip onset and slip distance ($\rho(89)=-0.609$, $p<0.001$; Fig. 4B)
- A weak, negative correlation between onset time and slip velocity was observed, however this relationship was still significant ($\rho(89)=-0.246$, $p=0.019$; Fig. 4C)
- As slips occur later in stance phase, the sliding foot tends to slow and travel a shorter distance in a direction that becomes increasingly lateral to and eventually opposite to the direction of walking

**ACKNOWLEDGEMENTS**

This work was supported through a Graduate Research and Creative Activity grant from the University Committee on Research and Creative Activity.

**REFERENCES**