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**CUDA® Simulations of Granular Flow** MATTHEW AARON, MARTIN MELHUS, Midwestern State University, MELHUS RESEARCH GROUP COLLABORATION — *We have written CUDA® code to perform granular simulations on GPUs. Normal interactions are modeled by a spring-dashpot model using a Gear's 5th order predictor-corrector scheme, while the tangential interactions are modeled by a new surface velocity difference scheme. Boundaries are created by using additional particles with constrained positions and velocities. Initial results show qualatative behavior expected from bulk particles.*

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