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- Markauskas D., Kačianauskas R. 2011. Investigation of rice grain flow by multi-sphere particle model with rolling resistance. *Granul. Matter* 13:143-8.
- Markauskas D., Ramírez-Gómez Á., Kačianauskas R., Zdancevičius E. 2015. Maize grain shape approaches for DEM modelling. *Comput. Electron. Agric.* 118:247-58.
- Noorka I.R., Hafiz S.I., El-Bramawy M.A.S. 2011. Response of sesame to population densities and nitrogen fertilization on newly reclaimed sandy soils. *Pak. J. Bot* 43:1953-8.
- Ouadfel H., Rothenburg L. 1999. An algorithm for detecting inter-ellipsoid contacts. *Comput. Geotech.* 24:245-63.
- Radvilaitė U., Ramírez-Gómez Á., Kačianauskas R. 2016. Determining the shape of agricultural materials using spherical harmonics. *Comput. Electron. Agric.* 128:160-71.
- Ramírez A., Nielsen J., Ayuga F. 2010. On the use of plate-type normal pressure cells in silos: Part 2: Validation for pressure measurements. *Comput. Electron. Agric.* 71:64-70.
- Ren B., Zhong W., Chen Y., Chen X., Jin B., Yuan Z., Lu Y. 2012. CFD-DEM simulation of spouting of corn-shaped particles. *Particuology* 10:562-72.
- Sharaby N., Butovchenko A. 2019. Cultivation technology of sesame seeds and its production in the world and in Egypt. *IOP Conf. Ser. Earth Environ. Sci.* 403:012093.
- Sharaby N., Doroshenko A., Butovchenko A. 2020. Simulation of Sesame Seeds Outflow in Oscillating Seed Metering Device Using DEM. *Eng. Technol. Syst.* 30:219-31.
- Soltanbeigi B., Podlozhnyuk A., Kloss C., Pirker, S. 2021. Influence of various DEM shape representation methods on packing and shearing of granular assemblies. *Granul. Matter* 23:1-16.
- Wang X., Yu J., Lv F., Wang Y., Fu H. 2017. A multi-sphere based modelling method for maize grain assemblies. *Adv. Powder Technol.* 28:584-95.
- Weigler F., Mellmann, J. 2014. Investigation of grain mass flow in a mixed flow dryer. *Particuology* 12: 33-9.
- Xu T., Yu J., Yu Y., Wang Y. 2018. A modelling and verification approach for soybean seed particles using the discrete element method. *Adv. Powder Technol.* 29:3274-90.
- Zhou Y.C., Wright B.D., Yang R.Y., Xu B.H., Yu A.-B. 1999. Rolling friction in the dynamic simulation of sandpile formation. *Phys. A Stat. Mech. Its Appl.* 269:536-53.

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