CV

Luís Marcelo Tavares
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Born November 14th, 1966

Current position at Universidade Federal do Rio de Janeiro

Professor (June/1998–present) of Mineral Processing, in the Department of Metallurgical Engineering.

Head of the Laboratory of Mineral Processing (LTM) (June/1998 – present): Established, as the only faculty member, LTM as one of the leading groups in the field of comminution in Latin America, combining interaction with industry, a strong international collaboration network and scientific leadership in the field.

Principal investigator of over 90 R&D, technology transfer and consulting projects with companies such as Vale, Anglo American, Samarco, Votorantim, Paul Wurth, Petrobrás, Norsk Hydro, Minsur, Cimento Tupi, ME Elecmetal, Grupo Santa Luzia, New Steel, among several others.

Partner of DEM Solutions (Edinburgh, UK) in application and development of DEM technology in Latin America (2010-present) and of ESSS-ROCKY (Florianópolis, Brazil) in the technical testing and implementation of models in the ROCKY-DEM simulation platform (2016-present).

Founding member of the Global Comminution Collaborative (GCC), which is a group of six universities worldwide strongly involved in research and technology transfer in the field of comminution and classification in the minerals industry.

Higher education

Ph.D. in Metallurgical and Materials Engineering (1997), University of Utah - Salt Lake City - UT - USA

Masters of Science in Metallurgical and Materials Engineering (1991), Universidade Federal do Rio Grande do Sul - Porto Alegre - RS - Brazil

B.S. Mining Engineering (1988), Universidade Federal do Rio Grande do Sul - Porto Alegre - RS – Brazil - Graduated on the top of the class of 1988, with the highest GPA.

Selected recent peer-reviewed publications

1. **Tavares, L.M.**, 2017. A Review of Advanced Ball Mill Modelling. KONA Powder and Particle Journal 106-124, 2017.
2. **Flores, Y.C., Cordeiro, G.C., Toledo Filho, R.D., Tavares, L.M.** 2017. Performance of Portland cement pastes containing nano-silica and different types of silica. Construction and Building Material 146, 524-530.
3. **Saeidi, F**., **Tavares, L.M., Yahyaei, M**., **Powell, M.S**., 2016. A phenomenological model of single particle breakage as a multi-stage process, Miner. Eng. 98, 90-100.
4. **Barrios, G.K.P**., **Tavares, L.M.**, 2016. A preliminary model of high pressure roll grinding using the discrete element method and multi-body dynamics coupling, Int. J. Miner. Process. 156, 32-42.
5. **Weerasekara, N. S.**, **Powell, M.S**., **Cleary, P.S**., **Tavares, L.M., Evertsson, M**., **Morrison, R.D**., **Quist, J.**, **Carvalho, R.M**., 2013. The contribution of DEM to the science of comminution,

Powder Technol. 248, 3-24.

6. **Barrios, G.K.P**., **Carvalho, R.M**., **Kwade, A**., **Tavares, L.M**., 2013. Contact parameter estimation for DEM simulation of iron ore pellet handling. Powder Technol. 248, 84-93.
7. **Carvalho, R.M., Tavares, L.M.** 2013. Predicting the effect of operating and design variables on breakage rates using the mechanistic ball mill model. Minerals Engineering, 43-44, 91-101.

Invited lectures in recent international events

1. Simulating Breakage in Rocky-DEM and the Tavares Breakage Model. Invited Speaker. 36th CADFEM Simulation Conference (Leipzig, Germany) 2018.
2. Advances in Mechanistic Mathematical Modeling of Ball Mills Using DEM-PBM. Keynote Speaker. 9th Int. Symp. Fine Grinding and Dispersing (Braunwschweig, Germany) 2018.
3. Mechanistic Comminution Modeling: A Success Story That Has Not Yet Ended. Invited Lecture. JKMRC/SMI Friday Seminar (Brisbane, Australia) 2018.
4. Getting the Most out of Ball Mills. Invited Lecture. 1st Int. Congr. Miner. Comminution (Lima, Peru) 2017.
5. Introdução à Cominuição. Invited Lecture. Seminar Series of the Instituto Politécnico de Tete (Tete, Moçambique) 2016.
6. Modeling and Simulation of Degradation of Iron Ore Pellets During Handling. Keynote Lecture. 6th Asian Particle Technol. Symp. (Seoul, South Korea) 2015.
7. Advanced Modeling of Ball Mills. Keynote Lecture. 14th European Symp. Comminution and Classification (Gothenburg, Sweden) 2015.
8. Simulation of Comminution and Degradation using DEM. Invited Lecture. Lecture Series of the University of Edinburgh (Edinburgh, Scotland) 2015.
9. Advanced Modeling of Crushing and Grinding. Keynote Speaker. 1st Int. Miner. Eng. Congr. (San Luis Potosí, Mexico) 2014.
10. Scale-up of tumbling mills: past, present and trends for the future. Keynote lecture. South Afr. Miner. Benef. Metall. Conf. (Cape Town, South Africa), 2012.
11. Multiscale modeling of comminution. Keynote lecture. 26th Int. Min. Process. Congr. (New Delhi, India), 2012.

Scientific publications and supervisions in numbers

Number of papers published in peer-reviewed journals (accepted):	81(2)
Number of books and book chapters published:	9
Number of full manuscripts in conference proceedings:	140
Number of citations (in Scopus October 18th 2018):	1590
h index (Scopus):	20
Number of M.Sc. students supervised or co-supervised	30
Number of Ph.D. students supervised or co-supervised	12

Editorial board membership

- International Journal of Mineral Processing (2017-2017)
- KONA Powder and Particle Journal (2013-present)
- Journal of Mining and Metallurgy. Section A (2012-present)
- Helyion (2016-present)
- Minerals (2018-present)