**DESCRIPTION**

*Gives readers a more thorough understanding of DEM and equips researchers for independent work and an ability to judge methods related to simulation of polygonal particles*

- Introduces DEM from the fundamental concepts (theoretical mechanics and solidstate physics), with 2D and 3D simulation methods for polygonal particles

- Provides the fundamentals of coding discrete element method (DEM) requiring little advance knowledge of granular matter or numerical simulation

- Highlights the numerical tricks and pitfalls that are usually only realized after years of experience, with relevant simple experiments as applications

- Presents a logical approach starting with the mechanical and physical bases, followed by a description of the techniques and finally their applications

- Written by a key author presenting ideas on how to model the dynamics of angular particles using polygons and polyhedral

- Accompanying website includes MATLAB-Programs providing the simulation code for two-dimensional polygons
Recommended for researchers and graduate students who deal with particle models in areas such as fluid dynamics, multi-body engineering, finite-element methods, the geosciences, and multi-scale physics.

ABOUT THE AUTHOR

Hans-Georg Matuttis, The University of Electro-Communications, Japan

Jian Chen, RIKEN Advanced Institute for Computational Science, Japan

RELATED RESOURCES

Instructor

View Instructor Companion Site

To purchase this product, please visit https://www.wiley.com/en-jp/9781118567203