

# Zhaohui Huang

Department of Mechanics and Engineering Science  
College of Engineering, Peking University  
Beijing, 100871, China

Email: zhaohui696@pku.edu.cn  
Phone: +86 18811711781



## EDUCATION

Ph.D.     Engineering Mechanics, Peking University, 2020-present  
B.S.     Theoretical and Applied Mechanics, Peking University, 2016-2020

## PROFESSIONAL EXPERIENCE

### Teaching Assistant

2021     Computational Methods (Undergrad. Level), Peking University  
2020     Engineering CAD (Undergrad. Level), Peking University

## RESEARCH AREAS

1. Granular materials: jammed packings of non-spherical particles and their mechanical properties.
2. Inverse design of materials: optimization in particle packings, especially the geometrically densest packings.

## PUBLICATIONS

### Journal Articles

- 2023     **Huang Z**, Deng W, Zhang S, et al. "Optimal shapes of disk assembly in saturated random packings." *Physical Chemistry Chemical Physics*, **forthcoming**.
- 2022     Wang Y, Deng W, **Huang Z**, et al. "Descriptor-free unsupervised learning method for local structure identification in particle packings." *The Journal of Chemical Physics*, 2022, 156(15): 154504. <https://doi.org/10.1063/5.0088056>
- 2021     **Huang Z**, Deng W, Yuan Y, et al. "Determining the equivalent packing diameter of two-dimensional shapes." *Powder Technology*, 2022, 396: 565-577. <https://doi.org/10.1016/j.powtec.2021.11.022>

### Working Papers

**Huang Z**, Zhou X, Jin W, et al. "Shape and space filling: a review on particle packing."

## **CONFERENCE ACTIVITY**

- 2022 12th Natl. Conf. on Soft Matter and Biological Physics. Wenzhou, China.  
2021 Chinese Physical Society Fall Meeting. Lanzhou, China.

## **SCIENTIFIC COMPUTING**

### **Programming**

C++, C, Python, TeX.

### **Software**

experience in Auto CAD, Ovito, etc.

## **AWARDS**

- 2022 Lee Wai Wing Scholarship  
2021 Outstanding Research Award