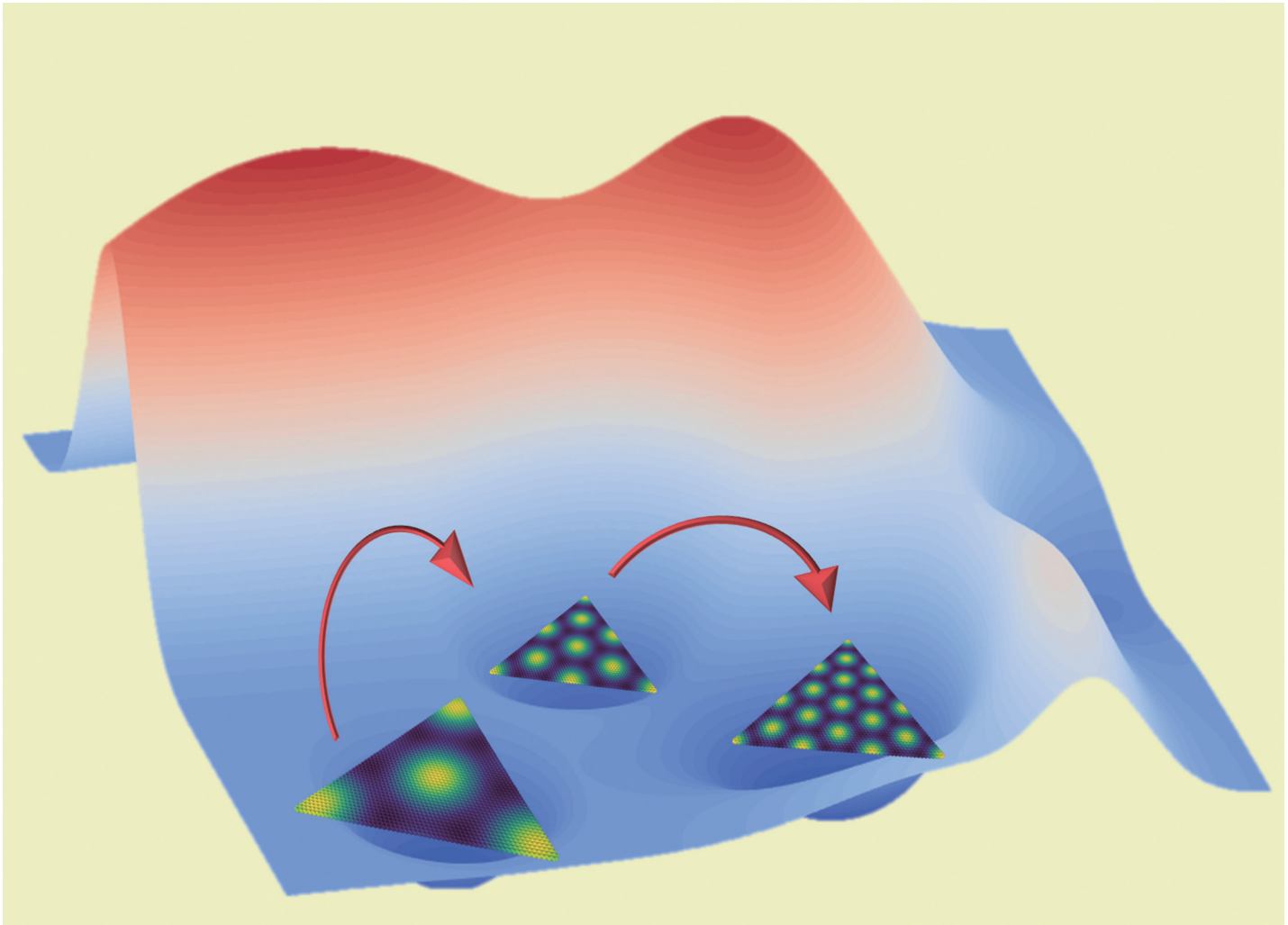


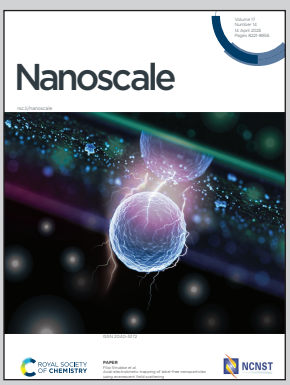
**Showcasing research from Prof. Shuze Zhu's group at Center for X-Mechanics, Department of Engineering Mechanics of Zhejiang University, Hangzhou, China.**

Universal scaling laws on the rotational energy landscape for twisted van der Waals bilayers

This work establishes universal scaling laws governing rotational energy landscapes of twisted 2D materials, resolving the critical challenge of predicting stable twist angles through analytical modeling of moiré geometry evolution. The theoretical scaling laws quantitatively determine energetically favorable angles and the scaling relations of interlayer rotational torque, in agreement with atomistic simulations across diverse material systems. The findings provide new perspectives on the rational design of nanoscale rotation-tunable electronic devices.

Image reproduced by permission of Shuze Zhu from *Nanoscale*, 2025, **17**, 8515.

## As featured in:




See Zichong Zhang and Shuze Zhu, *Nanoscale*, 2025, **17**, 8515.

ROYAL SOCIETY OF CHEMISTRY

rsc.li/nanoscale

Registered charity number: 207890