
**Name** **Wen-Tau Juan**

**Current Positions** **Associate Professor**
**Integrative Stem Cell Center**
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## Education

2001- 2005 Postdoctoral Fellow, Physics Department, Stanford University, U.S.A.
2000- 2001 Postdoctoral Fellow, Physics Department, National Central University, Taiwan
2000 Ph.D. in Physics, National Central University, Taiwan
1996 M.S. in Physics, National Central University, Taiwan
1994 B.S. in Physics, National Central University, Taiwan

## Expertise

Biomimetic Materials, Functional Tissue Development and Regeneration, Polymer Physics, Colloids, Biophysics, Complex Systems, Modern Optical Microscopies, Experimental Fluid Dynamics

## Research Interests

Dr. Juan's research focuses on the development and regeneration of functional tissues and the associated biomimetic applications through the innovations in the research approach, analysis, and modeling.

## Selected Grants:

Spatial-temporal couplings revealed by cellular morphologies during the tissue development, MOST 109-2112-M-039 -002 -MY3 (2020/8/1-2023/7/31)
Resolving the feather architecture and morphogenesis using quantitative morphology field analysis, MOST 109-2311-B-039 -002 -MY3 (2020/8/1-2023/7/31)

## Selected Publications

W.-L. Chang#, H. Wu, Y.-K. Chiu, S. Wang, T.-X. Jiang, Z.-L. Luo, Y.-C. Lin, Ang Li, J.-T. Hsu, H.-L. Huang, H.-J. Gu, T.-Y. Lin, S.-M. Yang, T.-T. Lee, Y.-C. Lai, M. Lei, M.-Y. Shie, C.-T. Yao, Y.-W. Chen, J.C. Tsai, S.-J. Shieh, Y.-K. Hwu, H.-C. Cheng, P.-C. Tang, S.-C. Hung, C.-F. Chen, M. Habib, R. B. Widelitz, P. Wu, **W.-T. Juan#***, C.-M. Chuong*, "The Making of a Flight Feather: Bio-architectural Principles and Adaptation", *Cell* 179: 1409–1423 (2019) IF= 38.637

Mingxing Lei, Linus J. Schumacher, Yung-Chi Lai, **Wen-Tau Juan**, Chao-Yuan Yeh, Ping Wu, Ting-Xin Jiang, Ruth E. Baker, Randall Bruce Widelitz, Li Yang, Cheng-Ming Chuong*, "Self-organization process in newborn skin organoid formation inspires strategy to restore hair regeneration of adult cells", *Proc. Natl. Acad. Sci. U S A.* 114(34), E7101-E7110 (2017) IF= 9.412

W.-T. Lin, Y.-C. Sun, C.-C Chang, Y.-C. Lin, C.-W. Peng, **W.-T. Juan***, and J.-C. Tsai*, "Ratcheting and transitions: Short granular chains in a gradient of vibration", *Phys. Rev. Lett.*112, 058001 (2014) IF=8.385

Chi-Chih Ho, Po-Yuan Chen, Keng-Hui Lin, **Wen-Tau Juan***, Wei-Li Lee*, "Fabrication of Monolayer of Polymer/Nanospheres Hybrid at a Water-Air Interface", *ACS Appl. Mater. Interfaces* 3, 204 (2011) IF= 8.758

Lin I*, **Wen-Tau Juan**, Chih-Hui Chiang, J. H. Chu, " Microscopic particle motions in strongly coupled dusty plasmas", *Science* 272, 1626-1628 (1996) IF= 41.845

## Selected Patents

1. Wei-Li Lee, Chi-Chih Ho, Keng-hui Lin, and Wen-Tau Juan, "Large-area Nanosphere-monolayer and Method for Fabricating the Same", Taiwan patent I421209. (Date of Patent: Jan. 1, 2014)