

# Curriculum Vitae for Youjun Hu

## 1. Personal Information

- Full Name: Youjun Hu
- Sex: Male
- Nationality: P. R. China

## 2. University Education

- Ph.D., 2009  
Department of Modern Physics, University of Science and Technology of China.
- B.S., 2004  
Department of Physics, Anhui Normal University.

## 3. Employment

- March, 2012---present, Associate research fellow, Institute of Plasma Physics, Chinese Academy of Sciences (ASIPP)
- April, 2017—May, 2019, Research Associate, University of Colorado - Boulder, Department of physics, Center for Integrated Plasma Studies.
- June, 2009---March, 2012, Research Assistant, Institute of Plasma Physics, Chinese Academy of Sciences

## 4. Research interests

- My current research is on computer simulation of interactions of energetic particles and MHD modes in tokamak plasmas.
- During my first employment at ASIPP (2009-2012), my research was on the physics of noninductive current drive in tokamak plasmas. I studied the influence of electron-electron collision model on the rf current drive efficiency. I developed a Fokker-Planck code to simulate the lower-hybrid current drive physics using fully relativistic collision operator.
- When I was a Ph.D student, the main research work performed was the theoretic and computational study of drift kink and collisionless tearing mode in the current sheet equilibria.

## 5. Publications

1. **Youjun Hu**, Matthew T. Miecnikowski, Yang Chen and Scott E. Parker, [Fully Kinetic Simulation of Ion-Temperature-Gradient Instabilities in Tokamaks](#), *Plasma* **1**, 10 (2018)
2. **Youjun Hu**, Y. Todo, Youbin Pei, Guoqiang Li, Jinping Qian, et al., Simulation of fast-ion-driven Alfvén eigenmodes on EAST tokamak, *Phys. Plasmas*, **23**, 022505 (2016)
3. **Youjun Hu**, G. Q. Li, N. N. Gorelenkov, Huishan Cai, et al., Numerical study of Alfvén eigenmodes in the EAST tokamak, *Phys. Plasmas*, **21**, 052510 (2014).

4. **Youjun Hu**, Y. M. Hu, and Y.R. Lin-Liu, Electron shielding current in neutral beam current drive in general tokamak equilibria and arbitrary collisionality regime, *Phys. Plasmas* **19**, 034505 (2012)
5. **Youjun Hu**, Y. M. Hu, and Y.R. Lin-Liu, Relativistic collision operators for modeling noninductive current drive by waves, *Phys. Plasmas* **18**, 022504 (2011).
6. **Youjun Hu**, Weihong Yang, Yinhua Chen, et al., Drift kink instability in the current sheet with a kappa-distribution. *Phys. Plasmas* **15**, 082114 (2008).
7. **Hu Youjun**, Yang Weihong, Chen Yinhua, et al., Lower-Hybrid Drift Instability in Modified Harris Current Sheet. *Plasma Sci. Technol.* **10** 416-421 (2008).
8. **Hu Youjun**, Yang Weihong, Chen Yinhua, Zhang Yu, Resonant absorption via mode conversion in magnetized inhomogeneous plasma, *Chinese Journal of Computational Physics* (in Chinese) Vol. 24, No. 3, 330-336 (2007).
9. Youbin Pei, Nong Xiang, **Youjun Hu**, Y. Todo, Guoqiang Li, Wei Shen, and Liqing Xu, Kinetic-MHD hybrid simulation of fishbone modes excited by fast ions on the Experimental Advanced Superconducting Tokamak (EAST), *Phys. Plasmas* **24**, 032507 (2017).
10. Y. M. Hu and **Y. J. Hu**, On variational formulation of current drive problem in uniformly magnetized relativistic plasma, *Nucl. Fusion.* **56**, 016011 (2016).
11. Yangqing Liu, Yi Tan, Zhe Gao, Yuhong Xu, **Youjun Hu**, et al., Observation of toroidal Alfvén eigenmodes during minor disruptions in ohmic plasmas. *Phys. Plasmas* **23**, 120706 (2016).
12. Wenjun Yang, Guoqiang Li, **Youjun Hu**, Xiang Gao, Linear stability of toroidal Alfvén eigenmodes in the Chinese Fusion Engineering Test Reactor. *Fusion Engineering and Design* **114**, 118 (2017).
13. Y. M. Hu, **Youjun Hu**, and Y.R. Lin-Liu, A relativistic theory of electron cyclotron current drive efficiency, *Fusion Sci. Technol.* **59**, 684 (2011).
14. Huishan Cai, Guoyong Fu, Liang Lin, D. Y. Liu, Weixing Ding, D. L. Brower, and **Youjun Hu**, Effects of pressure gradient on global Alfvén eigenmodes in reversed field pinch, *Phys. Plasmas* **21**, 022513 (2014).
15. Lu Wei, Chen Shao-Yong, Tang Chang-Jian, Bai Xing-Yu, Zhang Xin-Jun, and **Hu Youjun**, Nonlinear dependence of the synergetic current by the combined effect of ECCD and LHCD on the power ratio on HL-2A Tokamak, *Chin. Phys. Lett.* **30**, 065203 (2013).
16. Yu Zhang, Wei-Hong Yang, J. X. Ma and **Youjun Hu**, Characteristics of dust-ion-acoustic shock in inhomogeneous plasma by WENO scheme simulation. *J. Phys.D: Appl. Phys.* **40** 7412-7418 (2007).
17. Yu Zhang, Wei-Hong Yang, J. X. Ma, De-Long Xiao and **Youjun Hu**, Numerical study of dust-ion-acoustic solitary waves in an inhomogeneous plasma. *Planetary and Space Sci.* **56** 510-518 (2008).

## 6. Contact information

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