

Zhihong Lin, [Chancellor's Professor](#)

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Highlights

- Discovery of turbulence regulation by self-generated zonal flows in magnetized plasmas, laying foundation for modern theory of plasma turbulence.
- Discovery of device-size scaling and kinetic mechanisms of turbulent transport in fusion plasmas, enabling extrapolation of confinement properties from current experiments to future larger reactors.
- Original developer and principal architect of fusion simulation code GTC with high performance computing, pioneering kinetic method for magnetohydrodynamic processes enabling integrated simulation of cross-scale interaction in fusion burning plasmas.
- Lead interdisciplinary, multi-institutional U.S. Department of Energy (DOE) Scientific Discovery through Advanced Computing (SciDAC), Innovative and Novel Computational Impact on Theory and Experiment (INCITE), Leadership Computing Challenge (ALCC), Center for Accelerated Application Readiness (CAAR) projects, and International Tokamak Physics Activity (ITPA) on ITER simulations. One of the longest-serving PI of SciDAC and INCITE.
- Published 230 journal papers with 11,000 citations & h -index=55. *Science* 1998 paper: 1,400 citations.
<https://scholar.google.com/citations?user=ti-YBgMAAAAJ&hl=en>

Education

Ph.D. in Plasma Physics, Department of Astrophysical Sciences, *Princeton University* (1/1996).
B.S. in Physics, Department of Physics, *Peking University*, China (7/1989).

Appointments

University of California, Irvine, Department of Physics and Astronomy,
Chancellor's Professor, 12/2023-present,
Professor, 7/2008—present,
Associate Professor, 7/2005—6/2008,
Assistant Professor, 7/2002—6/2005.

Princeton University, Princeton Plasma Physics Laboratory,
Research Physicist, 10/2001--7/2002,
Staff Research Physicist, 12/1997--9/2001,
DOE Fusion Energy Postdoctoral Fellow, 12/1995--11/1997.

Honors and Awards

Chancellor's Professor, University of California, Irvine, 2023.
[Fellow](#), American Physical Society, 2006.
NSF CAREER Award, 2004.
DOE Plasma Physics Junior Faculty Development Award, 2003.
[US Presidential Early Career Awards for Scientists and Engineers, 2000.](#)
DOE Early Career Awards in Science and Engineering, 2000.
Kaul Foundation Prize for Excellence in Plasma Physics and Technology Development, 1999.