Stanford



David Tse

Thomas Kailath and Guanghan Xu Professor of Engineering

Electrical Engineering

Bio

ACADEMIC APPOINTMENTS

- Professor, Electrical Engineering
- Member, Institute for Computational and Mathematical Engineering (ICME)

LINKS

- http://web.stanford.edu/~dntse/: http://web.stanford.edu/~dntse/

Teaching

COURSES

2026-27

- Information Science and Engineering: ENGR 76 (Aut)
- Information Theory: EE 276 (Win)

2025-26

- Information Science and Engineering: ENGR 76 (Spr)

2024-25

- Fundamentals of Blockchain Infrastructure: EE 374 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Kamilla Nazirkhanova

Doctoral Dissertation Advisor (AC)

Robin Linus Woll

Master's Program Advisor

Aarzoo Aggarwal, Abhijnya Bhat, Angela Hu, Shiqi Liu, Xue Zhang, Yixiao Zhang

Doctoral (Program)

Robin Linus Woll

Publications

PUBLICATIONS

- **FinisherSC: a repeat-aware tool for upgrading de novo assembly using long reads.** *Bioinformatics*
  Lam, K., LaButti, K., Khalak, A., Tse, D.
  2015; 31 (19): 3207-3209

- **An Optimal and Distributed Method for Voltage Regulation in Power Distribution Systems** *IEEE TRANSACTIONS ON POWER SYSTEMS*
  Zhang, B., Lam, A. Y., Dominguez-Garcia, A. D., Tse, D.
  2015; 30 (4): 1714-1726

- **Feasibility of Interference Alignment for the MIMO Interference Channel** *IEEE TRANSACTIONS ON INFORMATION THEORY*
  Bresler, G., Cartwright, D., Tse, D.
  2014; 60 (9): 5573-5586

- **Network Risk Limiting Dispatch: Optimal Control and Price of Uncertainty** *IEEE TRANSACTIONS ON AUTOMATIC CONTROL*
  Zhang, B., Rajagopal, R., Tse, D.
  2014; 59 (9): 2442-2456

- **Polytope Codes Against Adversaries in Networks** *IEEE TRANSACTIONS ON INFORMATION THEORY*
  Kosut, O., Tong, L., Tse, D. N.
  2014; 60 (6): 3308-3344

- **Geometry of Power Flows and Optimization in Distribution Networks** *IEEE TRANSACTIONS ON POWER SYSTEMS*
  Lavaei, J., Tse, D., Zhang, B.
  2014; 29 (2): 572-583

- **Spatial Degrees of Freedom of Large Distributed MIMO Systems and Wireless Ad Hoc Networks** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*
  Oezguer, A., Leveque, O., Tse, D.
  2013; 31 (2): 202-214

- **Risk Limiting Dispatch in Congested Networks** *50th Annual Allerton Conference on Communication, Control, and Computing (Allerton)*
  Rajagopal, R., Tse, D., Zhang, B.
  IEEE.2013: 1900–1907

- **Geometry of Power Flows in Tree Networks** *General Meeting of the IEEE-Power-and-Energy-Society*
  Lavaei, J., Tse, D., Zhang, B.
  IEEE.2012

- **Degree-of-Freedom Gain From Using Polarimetric Antenna Elements** *IEEE TRANSACTIONS ON INFORMATION THEORY*
  Poon, A. S., Tse, D. N.
  2011; 57 (9): 5695-5709

- **Interference Networks With Point-to-Point Codes** *IEEE TRANSACTIONS ON INFORMATION THEORY*
  Baccelli, F., El Gamal, A., Tse, D. N.
  2011; 57 (5): 2582-2596

- **Information-Theoretic Operating Regimes of Large Wireless Networks** *IEEE TRANSACTIONS ON INFORMATION THEORY*
  Ozgur, A., Johari, R., Tse, D. N., Leveque, O.
  2010; 56 (1): 427-437

- **Information Theoretic Operating Regimes of Large Wireless Networks** *IEEE International Symposium on Information Theory*
  Oezguer, A., Johari, R., Tse, D., Leveque, O.
  IEEE.2008: 186–190

- **Approximate capacity of the two-way relay channel: A deterministic approach** *46th Annual Allerton Conference on Communication, Control and Computing*
  Avestimehr, A. S., Sezgin, A., Tse, D. N.

IEEE.2008: 1582–1589

- **Channel uncertainty in ultra-wideband communication systems** *IEEE TRANSACTIONS ON INFORMATION THEORY*
  Porrat, D., Tse, D. N., Nacu, S.
  2007; 53 (1): 194-208