

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

2025-26

- Information Science and Engineering: ENGR 76 (Spr)

2024-25

- Fundamentals of Blockchain Infrastructure: EE 374 (Spr)

2022-23

- Blockchain Foundations: EE 374 (Win)
- Information Theory: EE 276 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Kamilla Nazirkhanova

Doctoral Dissertation Advisor (AC)

Robin Linus Woll

Master's Program Advisor

Abhijnya Bhat, Dai-Rong Han, Vishal Jain, 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*
Ozgun, 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