Anzhong Hu: Curriculum Vitae

Work address
School of Communication Engineering,
Hangzhou Dianzi University,
Hangzhou 310018, China

Tel:+86-13758274053
email:huaz@hdu.edu.cn
Url: https://sites.google.com/view/anzhong-hu

Research

Massive MIMO systems, millimeter wave communication

Personal

Born on Aug. 1986 in Anji county, China; China nationality; Married with one child

Education

- 2009-2014: Beijing University of Posts and Telecommunications (BUPT), Beijing, China
  Doctor of Engineering, in Signal and Information Processing.
- 2005-2009: Zhejiang University of Technology(ZJUT), Hangzhou, China
  Bachelor of Engineering, in Communication Engineering.

Academic Experience

- Jan. 2020-present: Associate professor at Hangzhou Dianzi University(HDU), China.
- Jun. 2019-present: Visiting researcher at Chalmers University of Technology(CTH), Sweden.
- Jul. 2014-Dec. 2019: Lecturer at Hangzhou Dianzi University(HDU), China.

Teaching&Supervision

- 2014-present: Principle of Communication, Analog Electronics Technology,
  Communication Circuit, 5G Communication Technology, Experiments of Principle of Communication,
  Experiments of Communication Circuit, Course Design for Communication System.
- 2015-present: Supervised 25 undergraduate theses.
- 2017-present: 3 currently supervised master students

Funding

- Investigation of channel estimation in mmWave massive MIMO systems with hybrid processing, Zhejiang Provinsional Natural Science Foundation, 2020-2022, 90 thousand RMB, Principal investigator
- Investigation of marine communication technology based on satellite constellation system, National Natural Science Foundation of China, 2019-2022, 1.98 million RMB, co-investigator
- Automatic grouping of batteries array system based on big data learning, National Natural Science Foundation of China, 2017-2020, 2.1 million RMB, co-investigator

- Investigation of three dimensional beamforming in massive MIMO systems, Zhejiang Provinsional Natural Science Foundation, 2016-2018, 50 thousand RMB, Principal investigator.
- Investigation of transmission optimization theory and technology in massive MIMO systems, National Natural Science Foundation of China, 2017-2019, 190 thousand RMB, Principal investigator.
- Investigation of the construction of LDPC codes in block-fading channels, Zhejiang Provinsional Natural Science Foundation, 2015-2018, 100 thousand RMB, co-investigator
- Investigation of inter-cell interference mitigation in massive MIMO systems based on angle of arrival, Hangzhou Dianzi University, 2014-2016, 40 thousand RMB, Principal investigator

Publications

Overview

Since 2013, Dr. Anzhong Hu has published 12 journal papers, 11 conference papers, and received over 200 citations according to Google Scholar.

Journal papers

- A. Hu, S. Yang, Spatial Overlapping Index Based Joint Beam Selection for Millimeter-wave Multiuser MIMO Systems, Signal Processing, vol. 167, pp. 1-10, Sep. 2019.
- A. Hu, User scheduling for capacity-Jain's fairness tradeoff in millimeter-wave MIMO systems, Signal Processing, vol. 158, pp. 141-149, May 2019.
- A. Hu, Beam grouping based user scheduling in multi-cell millimeter-wave MIMO systems, IEEE Access, vol. 6, pp. 55004-55012, Sep. 2018.
- A. Hu and P. Pan, Concavity approximation based power allocation in millimeter-wave MIMO systems, IEEE Access, vol. 5, pp. 25731-25740, Nov. 2017.
- A. Hu, Antenna tilt adaptation for multi-cell massive MIMO systems, IEEE Communications Letters, vol. 21, no. 11, pp. 2436-2439, Nov. 2017.
- A. Hu, Channel estimation for interference mitigation in millimeter-wave multi-cell beamspace MIMO systems, Journal of Communications and Networks, vol. 19, no. 4, pp. 371-383, Apr. 2017.
- A. Hu, Antenna tilt design for millimeter-wave beamspace MIMO systems, Wireless Personal Communications, vol. 94, no. 3, pp. 1701-1713, Jun. 2017.
- A. Hu and H. Wang, Single branch search based pilot allocation for multi-cell massive multiple-input multiple-output systems, IET Communications, vol. 11, no. 5, pp. 726-732, Apr. 2017.
- A. Hu, DOA-based beamforming for multi-cell massive MIMO systems, Journal of Communications and Networks, vol. 18, no. 5, pp. 735-743, Nov. 2016.
- A. Hu, Estimation of sparse channels in millimeter-wave MU-MIMO systems, KSII Transactions on Internet and Information Systems, vol. 10, no. 5, pp. 2102-2123, May 2016.
- A. Hu, Statistical Beamforming for Interference Mitigation in Multi-cell Massive MIMO Systems, Frequenz, vol. 70, no. 1-2, pp. 47-56, Jan. 2016.
- A. Hu, T. Lv, H. Gao, et al, An ESPRIT-Based Approach for 2-D Localization of Incoherently Distributed Sources in Massive MIMO Systems, IEEE Journal of Selected Topics in Signal Processing, vol. 8, no. 5, pp. 996-1011, Apr. 2014.

Conference papers

- Y. Ettefagh, S. Jacobsson, A. Hu, G. Durisi, and C. Studer, All-Digital Massive MIMO Uplink and Downlink Rates under a Fronthaul Constraint, 2019 IEEE Asilomar Conference on Signals, Systems, and Computers, 2019.
- Y. Ding and A. Hu, Grouping Optimization Based Hybrid Beamforming for Multiuser MmWave Massive MIMO Systems, 2019 IEEE 2nd International Conference on Computer and Communication Engineering Technology(CCET), 2019.
- Y. Ding and Anzhong Hu, Maximizing Minimum Phase Difference Based Hybrid Beamforming for Multiuser mmWave Massive MIMO systems , 2018 IEEE 4th International Conference on Computer and Communications (ICCC), 2018.
- H. Liu, H. Gao, A. Hu, and T. Lv, Low-complexity transmission mode selection in MU-MIMO systems, 2014 21st International Conference on Telecommunications (ICT), 2014.
- C. Wang, T. Lv, H. Gao, A. Hu, and Y. Lu, Generalized likelihood ratio test multiple-symbol detection for MIMO-UWB: a semidefinite relaxation approach, 2014 IEEE Wireless Communications and Networking Conference (WCNC), 2014.
- H. Cai, T. Lv, H. Gao, and A. Hu, TOA estimation using checking window for IR-UWB energy detection receivers, 2014 IEEE 79th Vehicular Technology Conference (VTC Spring), 2014.
- C. Wang, T. Lv, H. Gao, and A. Hu, Tight Semidefinite Relaxation for Combinatorial Optimization in UWB Multiuser Detection Systems, 2014 IEEE 79th Vehicular Technology Conference (VTC Spring), 2014.
- W. Ding, T. Lv, A. Hu, and S. Su, A low-complexity vector precoding scheme for large multiuser MIMO systems, 2013 16th International Symposium on Wireless Personal Multimedia Communications (WPMC), 2013.
- A. Hu, T. Lv, ang Y. Lu, Subspace-Based Semi-Blind Channel Estimation for Large-Scale Multi-Cell Multiuser MIMO Systems, in Proc. 2013 IEEE 77th Vehicular Technology Conference (VTC Spring), Dresden, Germany, Jun. 2013, pp. 1-5.
- A. Hu, T. Lv, H. Gao, et al, Pilot design for large-scale multi-cell multiuser MIMO systems, in Proc. 2013 IEEE International Conference on Communications (ICC), Budapest, Hungary, Jun. 2013, pp. 5381-5385.
- A. Hu and T. Lv, A distribution fitting approach for localization of multiple scattered sources with very large arrays, in Proc. 2013 IEEE Military Communications Conference(MILCOM), San Diego, USA, Dec. 2013, pp. 453-457.