

Journal Watch: IEEE Transactions on Wireless Communications, June 2017

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July 01, 2017

- ▶ Downlink MAC Scheduler for 5G Communications with Spatial Focusing Effects

Authors: Zhung-Han Wu, Beibei Wang, Chunxia Jiang and K. J. Ray Liu

- ▶ **System Model:** An AP serving N users (TR) and $M \times 1$ downlink MIMO
- ▶ **Goal:** Develop a downlink user schedule to maximize the weighted sum-rate for Time-reversal system and Massive MIMO
- ▶ **Contributions:**
 - ▶ Solve the weighted sum-rate maximization problem with minimum rate constraint using MIQCQP.
 - ▶ Analyze impact of channel estimation error or imperfect channel information on the proposed channel information

- ▶ Receding Horizon Control for an Online Cross-Layer Design of Wireless Networks Over Time-Varying Stochastic Channels

Authors: Eleni Stai and Symeon Papavassiliou

- ▶ **System Model:** A network serving overlaying flows
- ▶ **Goal:** Develop a low-complexity online network utility optimization framework to maximize the utility with nonstationary channels
- ▶ **Contributions:**
 - ▶ Used model predictive control for developing the online num framework.

- ▶ Millimeter-Wave Beam Training Acceleration Through Low-Complexity Hybrid Transceivers

Authors: Danillo De Donno, Joan Palacios and Joerg Widmer

- ▶ **Goal: Design a parallel adaptive beam-training protocol with hybrid transceivers**

- ▶ **Contributions:**
 - ▶ Develop an algorithm to perform parallel multi-sector search

 - ▶ Also, proposed a greedy geometric algorithm to to synthesize sector beam pattern with adaptive beamwidth and multibeam radiation

Other Papers

- ▶ “Rate Adaptive Hybrid ARQ With Optimal Spectral Efficiency and Delay Tradeoff”, *Hairuo Zhuang*
- ▶ ‘Dynamic Transmit Covariance Design in MIMO Fading Systems With Unknown Channel Distributions and Inaccurate Channel State Information”, *Hao Yu and Michael J. Neely*
- ▶ “Soft Demodulation Algorithms for GSM using deterministic sequential Monte carlo” *B. Zheng, X. Wang, M. Wen, and F. Chen*
- ▶ “Robust Localization Using Range Measurements With Unknown and Bounded Errors”, *X. Shi, G. Mao, B. D. O. Anderson, Z. Yang, and J. Chen*