

## **Spatio-Temporal Equalization for Wireless Communication**

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Abstract. Problems with standard cellular system include limited bandwidth, susceptibility to interference and limits on the number of users per cell. Part of the bandwidth problem can be improved by adding adaptive equalization to standard wireless digital data links. Interference from other users and limitations on the number of users per cell are problems that can be ameliorated by adaptive beamforming antenna arrays. Both spatial (beamforming) and temporal (equalization) processing can be optimized jointly, thus providing better performance than either separately.