

- Abstract -

Linear transmit-receive strategies for multi-user MIMO wireless communications

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High data rate is one of requirements for future mobile communication systems. In 4G systems, the data rate growth is achieved by strongly increasing the spectral efficiency per BS, which is supported by coordinated multipoint (CoMP) concept or multiple-input multiple-output (MIMO) technique. The spatial dimension exploited in MIMO systems can help to mitigate the interference between different data streams or users. Linear transmit-receive strategies have been proposed to support space division multiple access (SDMA) at a base station or an access point and effectively mitigate or completely eliminate the multi-user interference (MUI). For example, linear precoding techniques and coordinated beamforming. In this talk, we will introduce several interesting contributions which have been proposed to give proper solutions to some open problems in the existing linear transmission techniques or help to enhance the existing algorithms.