

**„Front-end requirements for MIMO communication systems“**, pp.140-148

Christiane Kuhnert, Stephan Schulteis, Christian Waldschmidt, Werner Wiesbeck

**Abstract** – Future cellular communications will be enhanced by smart antenna techniques employing multiple antennas at both sides of the link. These multiple input multiple output (MIMO) systems combine antenna arrays and a sophisticated signal processing. Due to new signal constellations, impairments in the front-end impact system performance differently than in today's communication systems. The requirements for the front-end in MIMO systems are identified by an investigation of the robustness of MIMO systems against faults in the front-end.