Superconducting fluctuations probed by microwave absorption technique

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We use microwave absorption technique combined with an applied magnetic field (up to 16 T) to determine the transport properties around T_c in various families of cuprates (YBCO, Hg1201, LSCO, BSCCO). From these measurements we extract the temperature range where superconducting fluctuations start to contribute. In all the measured samples the fluctuation regime was found to be confined relatively close to T_c [1, 2, 3], with a tendency to increase by lowering the doping level. We discuss the results and compare them with those obtained by other techniques.

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