

Abstract Submitted
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Superconducting fluctuations in high-Tc cuprate superconductors BRIGITTE LERIDON, LPEM-UMR8213-CNRS — Experimental results on electrical transport in various high-Tc cuprate superconductors are shown (namely in $\text{YBa}_2\text{Cu}_3\text{O}_{6+x}$, $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+d}$, $\text{La}_{1-x}\text{Sr}_x\text{CuO}_4$). The part of the conductivity associated to superconducting fluctuations in the vicinity of the transition – also named paraconductivity - is extracted using different techniques for evaluating the normal state conductivity. Whenever possible, the conductivity measured under high pulsed field (50T) is used for the analysis. The results are compared to other experimental probes such as the Nernst effect, and are discussed from one compound to the other. It is shown that some straightforward conclusions can be drawn from relatively simple observations.

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