

## **What remains unproven by experiments for a theory of high temperature superconductors?**

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I will summarize the current state of the theoretical work started with Thierry and others of what is understood and proved beyond doubt in experiments in problems of the normal and superconducting state of cuprates. This will include the proposal for loop-current order, the derivation of marginal Fermi-liquid spectral function for quantum-critical fluctuations and evidence for them both in the normal state and as the driving mechanism for superconductivity. I will follow this with proposal to understand Fermi-arcs and magneto-oscillations in cuprates through topological decorations of loop-current order which has not yet been proven in experiments.