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Magneto-oscillations in Underdoped Cuprates CHANDRA VARMA, University of California, Riverside — The conventional interpretation of the recent magneto-oscillation experiments in underdoped Cuprates, requires that there be a state of altered translational symmetry in the pseudogap state which is not supported by structural and Angle Resolved Photoemission Spectroscopy (ARPES) experiments. I show that the observed oscillations may be reconciled with the conclusion arrived in ARPES experiments that the fermi-surface, suitably defined, has the shape of four arcs which shrink to four points as the temperature T approaches 0. Experiments, including infrared absorption in a magnetic field, are suggested to distinguish between such a state from that obtained by the conventional interpretation of the magneto-oscillations.

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