**Abstract:** Numerical studies of the two-dimensional Hubbard model show that it exhibits the basic phenomena seen in the cuprate materials. At half-filling one finds an antiferromagnetic Mott-Hubbard groundstate. When it is doped, a pseudogap appears and at low temperature d-wave pairing and striped states are seen. In addition, there is a delicate balance between these various phases. Here we begin by reviewing the evidence for this. Then we examine what numerical studies tell us about the structure of the interaction that is responsible for pairing in the Hubbard model and discuss it's relevance to the cuprate problem. We conclude that the d-wave pairing interaction in the high $T_c$ cuprates arises from the exchange of short-range antiferromagnetic spin-fluctuations. This has not always been a popular view*.

* “There was a heretical word in a secret book locked in the library of the abbey that if read or uttered meant death.” Umberto Eco, The Name of the Rose.

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