1031-81-88   **Alain Connes*** (`alain@connes.org`), College de France, 3 rue d'Ulm, F-75005 Paris, France.
Modular Hecke algebras and quantum statistical mechanics of Q-lattices: an overview. Preliminary report.

My intention is to discuss the general picture of the modular Hecke algebras and their relation to the GL(2) system of quantum statistical mechanics and to point towards open problems. I might also discuss, if time permits, the analogy with the statistical system needed to describe spontaneous symmetry breaking in quantum gravity. (Received August 05, 2007)