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A large-N approach to two-dimensional frustrated ising antiferromagnets with transverse external and exchange fields[1] PRASHANT SHARMA, Postdoctoral Associate — A large-N approach is developed to treat the problem of frustrated ising antiferromagnets on two-dimensional lattices– in particular the triangular and kagomé. Quantum dynamics is introduced in this model by either a transverse external field, or an exchange field that may be ferromagnetic or anti- ferromagnetic. Special emphasis is given to the Kagomé XXZ model in which disordered phases are found for both ferromagnetic and anti-ferromagnetic transverse exchange.

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