

Abstract Submitted
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Quantum Dimer Model: Phase Diagrams GARRY GOLDSTEIN, Cambridge University, CLAUDIO CHAMON, Boston university, CLAUDIO CASTELNOVO, Cambridge University — We present new theoretical analysis of the Quantum Dimer Model. We study dimer models on square, cubic and triangular lattices and we reproduce their phase diagrams (which were previously known only numerically). We show that there are several types of dimer liquids and solids. We present preliminary analysis of several other models including doped dimers and planar spin ice, and some results on the Kagome and hexagonal lattices.

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