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RVB liquid phase of a quantum dimer model with competing kinetic terms FRANCOIS VERNAY, University of Waterloo, Ontario, Canada, ARNAUD RALKO, ITP - Ecole polytechnique Federale de Lausanne, Switzerland, FEDERICO BECCA, SISSA, Trieste, Italy, FREDERIC MILA, ITP - Ecole polytechnique Federale de Lausanne, Switzerland — Starting from a spin-orbital model adapted to the case of $LiNiO_2$, we derived an effective quantum dimer model including 6-dimer loops. We argue that the relevant terms of this model are of kinetic type. Using numerical techniques like exact diagonalizations and Green's function Monte-Carlo we show that a competition between two kinetic terms can lead to a resonating valence bond state for a finite range of the parameters.

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