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Species doublers as supermultiplet partners in lattice supersymmetry. The supersymmetric quantum mechanics case.

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By interpreting species doublers as members of the same supermultiplet we describe the N=2 supersymmetric quantum mechanichs (including interaction) on a lattice with both supersymmetries exactly realized. Supersymmetric Ward identities are satisfies and the continuum limit is smooth. Interaction is non-local on the lattice, but locality is recovered in the continuum limit.

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talk

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