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**Excitons in FQH states** MARIA HERMANNNS, Princeton University, THOMAS KVORNING, THORS HANS HANSSON, Stockholm University — Fractional quantum Hall (FQH) states are the first experimentally realized systems that exhibit topological order. For a full understanding of these systems it is crucial to be able to describe not only their ground states and quasihole excitations, but in fact the full low-energy sector. The lowest energy excitations are believed to be neutral quasihole-quasielectron pairs. We present a description of these excitations for a wide range of FQH states. Our method allows us to variationally change the model states without changing any of their topological properties.

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