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**Diagrammar in an extended theory of gravity.** (English) Zbl 1372.83024  
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Summary: We show how the  $S$ -matrix of an extended theory of gravity defined by its three-point amplitudes can be constructed by demanding factorisation. The resultant  $S$ -matrix has tree amplitudes obeying the same soft singularity theorems as Einstein gravity including the sub-sub-leading terms.

**MSC:**

**83C47** Methods of quantum field theory in general relativity and gravitational theory Cited in 1 Document  
**81U20**  $S$ -matrix theory, etc. in quantum theory

**Full Text:** [DOI](#)

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