Herglotz's Variational Principle for an action dependent Einstein-Hilbert Lagrangian

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Abstract

We describe a suitable differential geometric setting in which to formulate an action dependent version of the Einstein-Hilbert Lagrangian. We derive the Herglotz equations following variational methods. The result are a modified version of Einstein's equations. This is an interesting application of Herglotz's variational principle to a singular, second-order field theory.

References

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