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## Cosmic Inflation from Yang-Mills Instantons

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We consider an eight-dimensional Einstein-Yang-Mills theory to study whether Yang-Mills instantons formed in extra-dimensions can trigger cosmic inflation in our four-dimensional spacetime. We observe that the Yang-Mills instantons in extra dimensions and homogeneous in four dimensional spacetime act as a cosmological constant for the four-dimensional Einstein gravity. As a result, we study whether the cosmic inflation in our four-dimensional spacetime can be triggered by the Yang-Mills instantons.

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