

## General Relativity and Quantum Cosmology

# Newtonian gravity in loop quantum gravity

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We apply a recent argument of Verlinde to loop quantum gravity, to conclude that Newton's law of gravity emerges in an appropriate limit and setting. This is possible because the relationship between area and entropy is realized in loop quantum gravity when boundaries are imposed on a quantum spacetime.

Comments: 16 pages, small improvements to introduction and conclusion

Subjects: **General Relativity and Quantum Cosmology (gr-qc)**; High Energy Physics - Theory (hep-th)Cite as: **arXiv:1001.3668v2 [gr-qc]**

## Submission history

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