



General Relativity and Quantum Cosmology

An overview of $f(R)$ theories

[Santiago Esteban Perez Bergliaffa](#)

(Submitted on 26 Jul 2011 (v1), last revised 10 Nov 2011 (this version, v2))

A brief introduction to theories of the gravitational field with a Lagrangian that is a function of the scalar curvature is given. The emphasis will be placed in formal developments, while comparison to observation will be discussed in the chapter by S. Jorvas in this volume.

Comments: Talk given at the XIV Brazilian School of Cosmology and Gravitation (2010), included in the proceedings to be published by Cambridge U. Press, references added

Subjects: **General Relativity and Quantum Cosmology (gr-qc)**;
Cosmology and Extragalactic Astrophysics (astro-ph.CO)

Cite as: [arXiv:1107.5183 \[gr-qc\]](#)
(or [arXiv:1107.5183v2 \[gr-qc\]](#) for this version)

Submission history

From: Santiago Esteban Perez Bergliaffa [[view email](#)]

[v1] Tue, 26 Jul 2011 11:50:57 GMT (46kb)

[v2] Thu, 10 Nov 2011 21:07:25 GMT (46kb)

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