

## A Bibliography for Ashtekar's ICTP-SAIFR Lectures

The first part provides is a list of references that provide an introduction to Ashtekar's lectures at a semi-popular level. The second part provides a list of overviews and reviews that would be useful to a more detailed understanding of the material that will be covered in my lectures. They are not meant to be the 'best' sources for loop quantum gravity and loop quantum cosmology. Rather, my lectures are most closely related to this material.

### I. Short and semi-popular introductions:

Web-page <http://www.gravity.psu.edu/outreach/index.shtml>

2009 entry:

From Big Bang to Big Bounce (PDF) by Anil Ananthaswamy; Cover story of the December 13, 2008 issue of New Scientist on Loop Quantum Cosmology.

2013 entry:

Before the Big Bang - Loop Cosmology Explained; A youtube video by Phillip and Monica Harper (43.26 min) Watch video

<http://physics.aps.org/articles/v5/142>

A Viewpoint article: A Glance at the Earliest Universe, by Parampreet Singh, Physics 5, 142 (2012)

### II. Overviews and Reviews:

arXiv:0812.0177

Loop Quantum Cosmology: An Overview; by Abhay Ashtekar

Comments: Proceedings of the Bad Honef Workshop entitled *Quantum Gravity: Challenges and Perspectives*, dedicated to the memory of John A. Wheeler;

Comments: 33 pages, 4 figures, appeared in Gen. Rel. Grav.

arXiv:1201.4598

Introduction to Loop Quantum Gravity, by Abhay Ashtekar

Comments: 30 pages, 2 figures.

arXiv:1303.4989;

Loop Quantum Gravity and the The Planck Regime of Cosmology; by Abhay Ashtekar

Comments: 23 pages, 4 figures. Plenary talk at the Conference: Relativity and Gravitation: 100 Years after Einstein in Prague. Summarizes results that appeared in journal articles [2-13]

arXiv:1108.0893;

Loop Quantum Cosmology: A Status Report, by Abhay Ashtekar and Parampreet Singh  
Comments: 138 pages, 15 figures. Invited Topical Review, appeared in *Classical and Quantum Gravity*.