

## Jantzen Robert

Position: professor, Villanova University

Period covered: 1983-present



### I Scientific Work

Collaboration with Donato Bini, Christian Cherubini, Andrea Geralico on mathematical properties of stationary spacetimes.

Lie groups and differential geometry: applications to physics

*Classical general relativity:*

Spatially homogeneous and self-similar spacetimes and mathematical cosmology

Spacetime splitting approaches, observer-measurement interpretation of spacetimes, gravitoelectromagnetism

### II Conferences and educational activities

#### Conferences and Other External Scientific Work

Participated in General Relativity and Gravitation Meetings:  
GR8 (1978) -- GR14 (1995), GR17 (2004)

Participated in Marcel Grossmann Meetings on General Relativity:  
MG2 (1979) -- MG11 (2006)

MG11 ICC chair and editor

MG12 ICC chair

### III Services

Teaching Duties

Full time teaching in Mathematical Sciences Dept of Villanova University

#### **IV 2007-2008 List of Publications**

Physical frames in along circular orbits in stationary axisymmetric spacetimes  
D. Bini, C. Cherubini, A. Geralico and R.T. Jantzen  
to appear in Gen. Rel. Grav. (2007).

Circular motion in accelerating black hole spacetimes  
D. Bini, C. Cherubini, A. Geralico and R.T. Jantzen  
to appear in Int. J. Mod. Phys. D (2007).

The speciality index and the Lifshitz-Khalatnikov Kasner index parametrization  
D. Bini, C. Cherubini and R.T. Jantzen  
Class. Quantum Grav. 24 5627-5636 (2007).

The Lifshitz-Khalatnikov Kasner index parametrization and the Weyl tensor  
D. Bini, C. Cherubini and R.T. Jantzen  
to appear in Nuovo Cimento (2007).