

# The Anderson-Friedman Absolute Objects Program: Several Successes, One Difficulty

Pitts, J. Brian (2006) The Anderson-Friedman Absolute Objects Program: Several Successes, One Difficulty. In *[PSA 2006] Philosophy of Science Assoc. 20th Biennial Mtg (Vancouver): PSA 2006 Contributed Papers*.

Full text available as:

[PDF](#) - Requires a viewer, such as [Adobe Acrobat Reader](#) or other PDF viewer.

## Abstract

The Anderson-Friedman absolute objects project is reviewed. The Jones-Geroch dust 4-velocity counterexample is resolved by eliminating irrelevant structure. Torretti's example involving constant curvature spaces is shown to have an absolute object on Anderson's analysis. The previously neglected threat of an absolute object from an orthonormal tetrad used for coupling spinors to gravity appears resolvable by eliminating irrelevant fields and using a modified spinor formalism. However, given Anderson's definition, GTR itself has an absolute object (as Robert Geroch has observed recently): a change of variables to a conformal metric density and a scalar density shows that the latter is absolute.

**Keywords:** general covariance, absolute object, spinor, density

**Subjects:**

[Specific Sciences: Physics: Symmetries/Invariances](#)  
[Specific Sciences: Physics: Relativity Theory](#)  
[Specific Sciences: Physics: Quantum Field Theory](#)

**Conferences and Volumes:**

[\[PSA 2006\] Philosophy of Science Assoc. 20th Biennial Mtg \(Vancouver\): PSA 2006 Contributed Papers](#)

**ID Code:** 3005

**Deposited By:** [Pitts, J. Brian](#)

**Deposited On:** 21 October 2006