Physics Journal Club

Wednesday 10/18/2006, 4:30 pm
Willet Science Center 101

"Spacetime and Euclidean Geometry"

by Dieter Brill and Ted Jacobson, Gen.Rel.Grav. 38 (2006) 643-651.
(See also http://xxx.lanl.gov/abs/gr-qc/0407022.)
Jose Balduz, of the Mercer University Department of Physics,
will lead discussion.

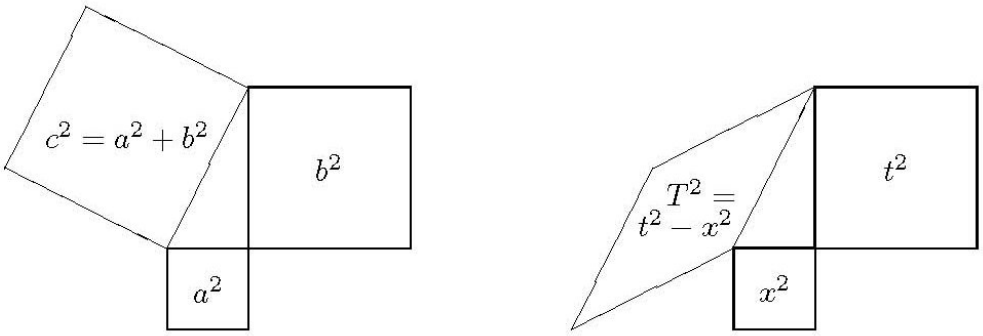

Figure 5: Pythagorean theorem, (a) Euclidean (b) Minkowskian.

Abstract: "Using only the principle of relativity and Euclidean geometry we show in this pedagogical article that the square of proper time or length in a two-dimensional spacetime diagram is proportional to the Euclidean area of the corresponding causal domain. We use this relation to derive the Minkowski line element by two geometric proofs of the *spacetime Pythagoras theorem*." This article is available online at http://xxx.lanl.gov/abs/gr-qc/0407022, and there will be copies at the session.

Please join us for light refreshments at 4:15pm outside WSC 109.