

Theory Seminar

Monday, April 11, 2011 2:10 PM 831 Pupin Hall

THE EXPANDING TRINIVERSE

I will describe a class of time-dependent solutions in string- or M-theory that are exact with respect to alpha-prime and curvature corrections and interpolate in physical space between regions in which the low energy physics is well-approximated by different string theories and string compactifications. The regions are connected by expanding "domain walls" but are not separated by causal horizons, and physical excitations can propagate between them. Examples include solutions that interpolate between oriented and unoriented string theories, and also between type II and heterotic theories. These solutions can be weakly curved and under perturbative control everywhere and can asymptote to supersymmetric at late times.



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