

Abstract Submitted  
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**Defining a finite universe from a holographic horizon.** PAUL OBRIEN, retired — By combining Carl Schwarzschild's solution for BH mass and radius with Hawking's solution for the BH mass and temperature one can define both the initial and final condition of a finite Universe, (U); which conserves Mass, ( $M_u$ ), Energy ( $E_u$ ) and Quantum Information, ( $I_u$ ) measured from a holographic horizon that contains the entire universe at some time (t) where  $(c^2t^2) = (R^2)$ . Since (c) is a constant then  $(t^2) = (R^2) = (M_u)/(T)$ . I will derive 4 equations that prove this.

Paul OBrien  
Retired

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