962-35-878

Calvin D Ahlbrandt\* (calvin@math.missouri.edu), Department of Mathematics, University of Missouri, Columbia, MO 65211-0001, and Christina Morian, Department of Mathematics, Lincoln University, Jefferson City, MO 65102. *Partial Differential Equations on Time Scales.* 

Discrete and continuous formulations of partial differential operators are unified by a time scale formulation of partial differential operators. Results include an Euler–Lagrange equation for double integral variational problems on time scales and a Picone identity which implies a Sturm–Picone comparison theorem for second order elliptic PDEs on time scales. (Received September 28, 2000)