



Physics Colloquium

Dr. Juliane Behrend

Dept. of Mathem., Statistics and Computer Science
St. Francis Xavier University
Friday, 6 November 2009
4:00pm, PSC 3046

The Averaging Problem and Cosmological Observations

There is speculation that the observed acceleration of the universe is the result of the backreaction of present inhomogeneities rather than the effect of a dark energy fluid or a modification of general relativity. To determine the relative importance of this backreaction an averaging procedure is needed which is capable of averaging tensor fields on a differentiable manifold in a generally covariant way. We will discuss different approaches to overcome the technical difficulties in defining such a procedure and study the ways in which backreaction can influence cosmological observations and therefore our understanding of the universe.

For further information on Physics colloquia visit <http://physics.stfx.ca>
Doughnuts and coffee will be served at 3:45 pm