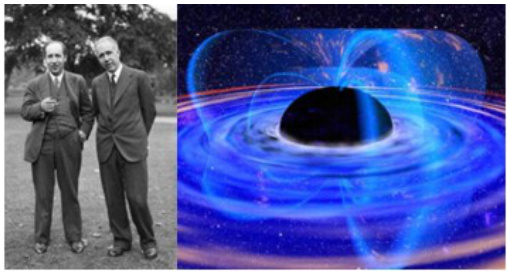

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The interface between mathematics and astrophysics in the study of cosmic acceleration.

Monday 7 April 2008 11:15 (1 hour)

For about the last ten years cosmic acceleration has been a subject of wide interest in cosmology. By now there are a number of interesting mathematical results in this area. A closer examination reveals that while the mathematical theorems are often of greater generality than what is considered in the astrophysical literature there are topics of astrophysical interest which fail to be addressed at all by the mathematical developments up to now. This talk will discuss possibilities of improving the interface between the two subjects in this context, concentrating on the case of the massive scalar field as a source for the Einstein equations. Other aspects of the question will be illuminated by consideration of a modification of the Einstein equations given by Cardassian models, following work of Nikolaus Berndt.

Presenter: RENDALL, Alan (AEI Golm)