

Colloquium Notice

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Bringing Astronomers and Computer Scientists Together: Using Novel Regression Analysis for the calculation of Galaxy Photometric Redshifts in the Sloan Digital Sky Survey

It seems that everywhere one looks as of late one sees new collaborations between unexpected partners to solve interesting problems in Astronomy. The Largest CCD Optical Survey of The Universe (The SDSS) has a query database designed and funded by a Microsoft research group. It's successor (LSST) will have its 30TB/day data processing needs done by Google while Bill Gates and other entrepreneurs contribute to infrastructure costs. I will discuss how such collaborations are made possible today. Then I will focus on how new approaches to Galaxy Photometric Redshift estimation in The SDSS using advanced regression analysis was developed as the result of a collaboration between Astronomers and Computer Scientists at NASA/Ames and Mathematicians at San Jose State University. I will also quickly review the history of regression analysis and give some background on photometric redshift estimation. Time permitting I will demo another joint project from NASA/Ames called viewpoints (<http://astrophysics.arc.nasa.gov/viewpoints>) Viewpoints can help characterize multivariate data from any discipline, but much of its development took place with the SDSS in mind.

Monday

March 3, 2008

Starts at 12:15 PM

Coffee at 12:00 PM

Physics Conference Room, SB B326