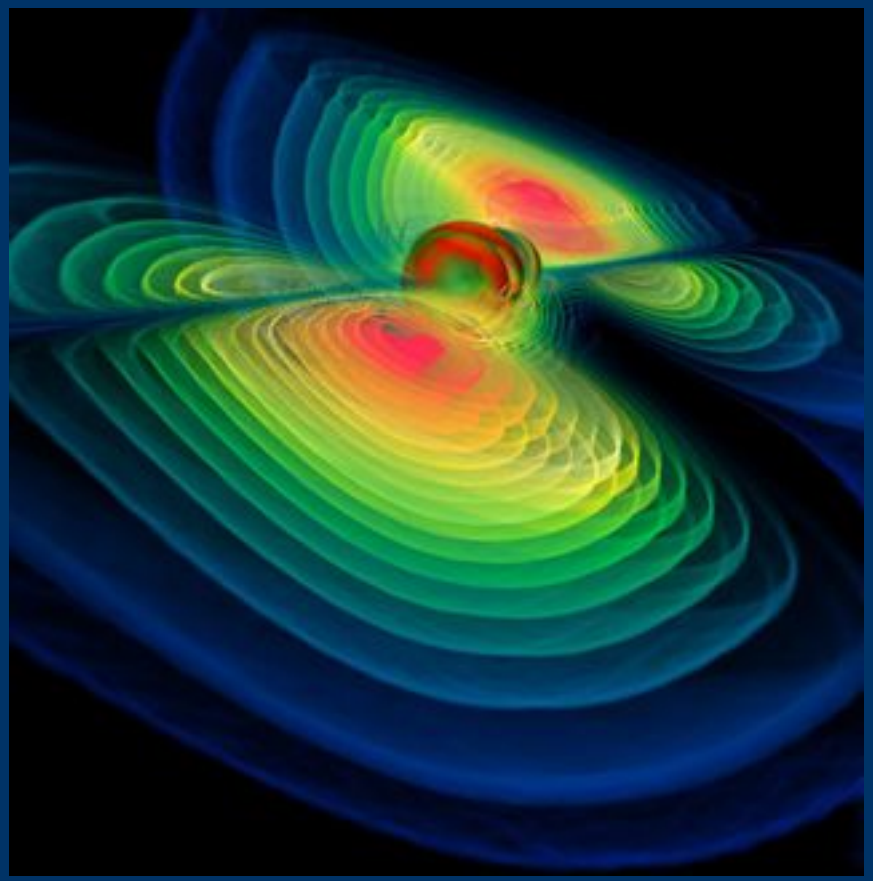
The Center for Gravitation and Cosmology at the University of Wisconsin -- Milwaukee



Xavier Siemens

7 faculty: Luis Anchordoqui, Patrick Brady, Jolien Creighton, John Friedman, Leonard Parker, Xavier Siemens, Alan Wiseman, (Adjunct: Bruce Allen, Marialessandra Papa)

2 staff scientists: Warren Anderson, Scott Koranda

10 postdocs (by September): Lisa Goggin, Jessica Clayton, Ruslan Vaulan, Adam Mercer, Xavier Amador, Satoshi Nawata, Keisuke Taniguchi, Larry Price, Jordi Burguet, Peng Peng Yu

3 system administrators

Several graduate students and undergraduates

A lot of the people (in orange) do LIGO related activities

Mixture of relativists, cosmologists, astrophysicists, particle physicists... Most members are involved in more than one area of research.

The group is heavily involved in gravitational wave research, and contributes to virtually every LIGO data analysis area. We also work on computing infrastructure and are involved in instrument calibration. To do the data analysis we have a dedicated 1560 core cluster.

Sparked by a visit from Rick Jenet, a few months ago a couple of us started thinking about getting into radio astronomy with a view to contributing to the pulsar timing effort, because of our interest in gravitational waves.

What we've done so far

(i) We're trying to set up an ARCC@UWM research and outreach program like the one at UTB

We've had 7 remote observing sessions so far, 11 people involved (2 high school teachers, 3 high school students, several undergraduates, 1 graduate student)

Recently started candidate viewing training sessions for high school teachers, students, and staff

Generally gearing up the observing program in close collaboration with Rick and UTB group members.

What we've done so far contd…

(ii) UWM postdoc Jessica Clayton and Xavier Siemens with much help from Kevin Stovall and David Champion have added checkpointing to Scott Ransom's PRESTO pipeline. Currently undergoing testing at UWM's supercomputer.

(iii) UWM graduate student Melissa Anholm, postdoc Larry Price, with Xavier Siemens and Jolien Creighton have begun work on pulsar timing data analysis

(iv) Submitted an internal proposal and got a small amount of funding (UG stipends, TA) and a faculty position in observational astronomy, with an emphasis on radio astronomy. Search will start in Fall 2008.

What we plan to do

(i) Have a full scale ARCC observing program

(ii) Use our cluster to analyze radio data to find new radio pulsars

(iii) Apply our gravitational wave and LIGO experience to the problem of pulsar timing data analysis. Develop optimal strategies and techniques.

(iv) Work on cosmological and astrophysical sources

We would like to collaborate with the pulsar timing community

Please consider applying (and encourage others to apply) to our faculty job