

Eighth Annual Schearer Prize Competition

The Eighth Annual Schearer Prize Competition for Graduate Research took place on the UMR campus in November, 2001. The Schearer Prize was established to commemorate the memory of the late Dr. **Laird D. Schearer**, Curators' Professor of Physics, who joined the department in 1971, and served as department chair from 1971 to 1977. Professor Schearer's encouragement and support of scientific research enabled the UMR physics graduate program to grow and flourish. The Laird D. Schearer Fund, endowed through gifts from alumni, friends, and the Schearer family, was established in 1994, to provide annual prizes for the best research conducted by UMR physics graduate students.

This year, five students, representing a variety of different research disciplines, entered the competition, which was judged by UMR faculty members **Dan Waddill**, **Carsten Ulrich**, **Barbara Hale**, and **Bob DuBois**. From the five entries received, the committee selected three finalists to present short talks on their research at a regular department colloquium. Based on the quality of the talks and on each participant's overall research record, the committee, after much deliberation, awarded first place to **Kisa Ranasinghe**, (see related story, right) whose entry was entitled "Containerless processing of lithium-disilicate glass using an electrostatic levitator," while Carmen Doudna, who presented "Structural investigation of Ag-Pd clusters synthesized with the radiolysis method," and **Muzaffer Tabanli**, who discussed "Electron-cadmium ionization for energies near overlapping autoionizing resonances," tied for second place. Ms. Ranasinghe is doing her thesis work under the direction of **Gerry Wilemski** (Physics) and **Del Day** (Materials Research Center and Ceramics). Ms. Doudna is working with **Max Bertino** while Mr. Tabanli is working with **Jerry Peacher** and **Don Madison**. The Physics Department is extremely proud of the research accomplishments of all the students who entered the competition.

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Meanwhile, Agnes worked at the University of Dresden on ferroelectric ceramics, interrupted by several months of family leave after the birth of Sophia and Philipp in 1997 and 1999, respectively.

After his Habilitation, Thomas won a Heisenberg Fellowship which he used to spend most of 2001 at the University of Oxford in the United Kingdom.

Finally, they returned to the US, joining the UMR physics faculty this winter. The Physics department is pleased to welcome them to the Rolla area, where they have already been busy exploring the hiking trails, rivers, and state parks of Missouri.

From Schearer Prize Winner Kisa Ranasinghe



Kisa Ranasinghe

It was a great honor to receive first prize in the Eighth Annual Laird D. Schearer Graduate Research Competition. I would like to thank the committee and the staff in the Physics department for giving me the opportunity to participate and for selecting me as a winner. I would like to offer special thanks to my supervisors **Dr. Delbert E. Day** and **Dr. Chandra S. Ray** for encouraging me to participate in the competition. The talk I presented was based on work we did on the containerless processing of lithium-disilicate glass using an electrostatic levitator. For the first time we have been able to successfully levitate, melt, and process oxide glasses using the Electrostatic Levitator (ESL) furnace at NASA Marshall Space and Flight Center in Huntsville, Alabama. I would like to thank **Dr. Jan Rogers** and her team for giving us space and time in their busy schedule to conduct our experiment. This work is part of our ongoing research project in which we are going to melt glass in the International Space Station. This very exciting research makes me happy that I came this far from home to this little town of Rolla. I came to UMR in the fall of 1998 to study for my Ph.D. after I finished my bachelor's degree in Sri Lanka, where I was born and raised. On arriving in Rolla, I at first felt I had come to the middle of nowhere. Then I met the professors and staff in the physics department and found out that this is indeed a friendly place where humanity matters, instead of where you are from. **Dr. Kanishka Marasinghe** (PhD '93), then research associate professor and fellow Sri Lankan, introduced me to Dr. Day and Dr. Ray. He and his family took me under their wing from the moment I arrived. After nearly five years of this journey at UMR, my accomplishments are many, not just as a student but also as a person. Being president of the International Student Club in UMR, I found capacities and courage I didn't realize I had.