

## **The Annual Report**

The Association for Women in Mathematics (AWM) is a very important organization with its purpose: "to encourage women and girls to study and to have active careers in the mathematical sciences, and to promote equal opportunity and the equal treatment of women and girls in the mathematical sciences". There are many opportunities for members of this important and very prestigious organization. One of the most exciting ones is the opportunity to attend the Workshops organized by the AWM in conjunction with annual meetings of the American Mathematical Society (AMS) and the Society for Industrial and Applied Mathematics (SIAM).

We encourage undergraduate students to join us, especially the students who are interested in Science, Technology, Engineering and Mathematics (STEM). In order to achieve this goal, the KU organization has the established record of bringing remarkable women, the leaders in their professions as guest speakers. As our first speaker this academic year, we invited Professor Alice Bean, from the Department of Physics and Astronomy at KU, on September 29<sup>th</sup>, 2009. She shared her research about the experimental particle physics and the project about The Large Hadron Collider in Switzerland, which is one of the largest scientific projects undertaken. She also discussed KU's role in this project and her experiences living in Switzerland with the students from the US. Since she leads a Program in International Research and Education project which brings undergraduate and graduate students to Switzerland for study as well as research, there had been a big interest by the undergraduate students.

We have an important task to do, to help Math Department to do better job with recruitment and retention of women and AWM student chapter is devoted and determined to help. In order to help undergraduate students with their concerns, on November 16<sup>th</sup>, 2009, we invited Prof. Jeffrey Humpherys from Brigham Young University. In his talk, he discussed about the new model for research and education, IMPACT, Interdisciplinary Mentoring Program in Analysis, Computation and Theory. He talked about the intellectual

core, program vision, interdisciplinary research, modernized curriculum, industrial cooperation, socialization and team building. In order to help graduate students with their concerns, on the same day, we invited Prof. Sara Thomas, Associate vice Provost for Research and Graduate studies. She has primary responsibility for the administration of graduate education at KU, university-wide graduate policies and processes, including GTA and GRA contracts, the graduate student application process, data gathering and reporting, and new graduate program approval. In her talk, she focused on the graduate training models, graduate education, in particular how to become a graduate student superstar, as well as on the importance of having a good mentoring system.

It has been observed that the graduate academic life is becoming more difficult for graduate students after they get married. It is actually more difficult for female students when they become mothers. In order to understand the reasons for that and also to solve their problems, on December 7<sup>th</sup>, 2009, we invited our fourth speaker, Prof. Donna Ginther, from Economics and the Director of the Center for Economic and Business Analysis at the Institute for Policy & Social Research at KU. She discussed about scientific labor markets, gender differences in employment outcomes, wage inequality, scientific entrepreneurship, and children's educational attainments. The big percent of the participants were graduate students and the faculty members.

In order to welcome our new chancellor and to discuss about the problems of both undergraduate and graduate students, on February 1<sup>st</sup>, 2010, we invited the Chancellor, Bernadette Gray-Little. She is the first female Chancellor and the first African-American. The discussion was based on discussing the reasons why the undergraduate students have difficulties in Math classes. The discussion was what to do to solve this problem. Faculty members gave their suggestions and Chancellor listened to everybody and then shared about her observations and suggestions. She shared with us her vision and goals for the university such as. She said: " I came to the University of Kansas with three initial goals: Increase our retention and graduate rates, enhance the university's scholarly and research profile, and ensure we have the resources to accomplish these goals. If we can

achieve these goals, we will position our university to better serve our students and our state".

AWM, KU Chapter also nominates and endorses female undergraduate students for their conference participations. One of the recent example is the undergraduate student currently very active in AWM who asked the Chancellor "the best question (in category of undergraduates)" at the meeting of the AWM Student Chapter at KU, Yue Chu, an Honors Program student, a Dean's Scholar, math major awarded with math scholarship who has taken 5 graduate courses while being a junior. She recently attended as the only KU math department delegate and fully supported by the math department University of Nebraska Conference for female undergraduates who have been involved in research. She shared her invaluable experience from the conference with the members of the chapter.

AWM also takes an important role in helping Math Department in the organizing the Mathematics Awareness Month(MAM)/Outreach Program activities such as workshops for 6th graders and the mAM competition for 4th-12th graders. All the students, undergraduate and graduate, are highly recommended to participate in these activities because MAM activities are considered as "Broader Impact" activities, they are highly recognized by the NSF , they look good on student's resume and they are ones of the most rewarding "community activities". The topic of this year MAM is Math and Sports. Graduate students in the math department, along with other volunteers, will put together two workshops for local 6th grade classes composing of four 15 minute exciting and entertaining presentations. The workshop dates are April 7<sup>th</sup> & 14<sup>th</sup>, 2010. AWM Chapter will also help in the Annual MAM Competition for 4th-12th graders on April 3<sup>th</sup>. We will still have two meetings with guest speakers focusing on organizing successful conferences. The international guest speaker, Katarzyna Piaskowska, Ph.D student from Poland will give a technical talk and the workshop how to design and run the best international conference on May 3<sup>rd</sup>. She is a co-organizer of very successful annual conference for PhD students and young scientists in Poland "Young scientists towards the challenges of modern technology". We will finish our successful and memorable academic year with the reception open to all faculty and students on April 30<sup>th</sup>.