16th Biennial Conference Association of Christians in Mathematical Sciences Messiah College Grantham, PA May 30 – June 2, 2007

The conference is now over. The proceedings of the conference will eventually be published by Wheaton College. You may purchase a copy by writing to Dr. Bob Brabenec, Robert.L.Brabenec (AT) wheaton (DOT) edu. The price will not be known until the page count is determined.

The sixteenth biennial conference of the Association of Christians in the Mathematical Sciences (ACMS) will be held at Messiah College, Grantham, PA. The links above will direct you to schedule and registration materials. The Department of Mathematical Sciences looks forward to hosting you for three days on our campus.

Our invited speakers are

- mathematician <u>Francis Edward Su</u> from Harvey Mudd College;
- astronomer and NASA scientist <u>Jennifer J. Wiseman</u>, also a <u>visiting scientist</u> at Johns Hopkins University; and
- Charles R. Hampton, Johnson Professor of Mathematics at Wooster College.

Francis Su's abstract follows:

"Preference Sets, Graphs, and Voting in Agreeable Societies"

When mathematical objects have a social interpretation, the associated theorems have social applications. We give examples of situations where sets model preferences, and suggest extensions of classical theorems on convex sets (such as Helly's theorem) which have applications to the analysis of voting in "agreeable" societies. This talk features research with undergraduates.



Jennifer Wiseman's abstracts follow:

"A Universe of Praise"

The heavens have fascinated human beings since the dawn of our existence and have fueled our contemplations of identity, philosophy, theology, and God. Yet within the last few decades we have learned more about the universe than in all other centuries combined, and what we have seen speaks of immensity, power, and beauty far beyond what was previously ever imagined. How have these discoveries affected our view of ourselves and our faith? I will present some of the most fascinating recent detections in astronomy, including planets around other stars, new stars in formation, the most powerful explosions in the universe, remnant light from the Big Bang, evidence from billions of years past that the expansion of our universe is accelerating, and theories that our universe may be one of many. Mathematical beauty and intricacy play out the physical forces that govern the universe, ordaining spiral galaxies and fractal interstellar clouds. While science addresses only the natural physical realm, we will discuss how these discoveries might inform our understanding of the character of God and our own significance in the universe.

"Science and Service in Public Policy"

Science, mathematics, and technology are involved in nearly every human endeavor, including research, teaching, education, agriculture, economics, national defense, recreation, and environmental care. With scientific and technical training, the Christian citizen can be of special service to the community, the nation, and the world by applying technical knowledge to real policy and stewardship issues faced by government and other leadership institutions. I will talk about different ways of getting involved in science policy and community leadership from a scientific background, and the kinds of scientific, technical, and ethical issues that are faced by government leaders and national agencies where the presence of thoughtful Christians with technical backgrounds could be of tremendous service to the world.



Chuck Hampton's abstract follows:

"Bach to the Calculus of Variations"

The calculus of variations used to be part of every mathematician's education but this beautiful and interesting topic has nearly completely disappeared from our curricula. Bernoulli is the name most closely associated with the calculus of variations for his solving of the brachystochrone problem. Before we examine this part mathematics we will explore the parallels and intersections of two intellectual giants of the early 18th Century: Johann Bernoulli and Johann Sebastian Bach.

Messiah College last hosted the ACMS in 1989.

The ASMC Website provides further information about the organization. General information about the current conference can be directed to Dr. Angela Hare (ahare AT messiah DOT edu).