



# The Basic Facts

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The Basic Facts, College of Basic and Applied Sciences, Middle Tennessee State University, Murfreesboro, TN

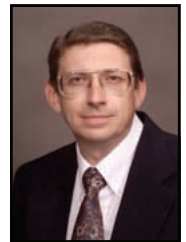
## Agriscience and Agribusiness Students Win Awards

Six students from the MTSU livestock judging team competed at the Southwestern Exposition National Livestock Judging Contest in Fort Worth, TX, and the Dixie National Beef Judging Contest in Jackson, MS, in February. The team placed first overall in the horse division at the Southwestern contest. Team members include Holly Bagget, Lindsey Hodge, Sarah Norman, Julie Ozburn, Samantha Southard, and Monica Wilmore. The team will compete in the All East Contest to be held at Penn State University in April. The team is coached by *Jessica Carter*.

Students in the MTSU Plant and Soil Science Club attended the southern region meetings of the American Society for Horticultural Science in Corpus Christi, TX. Eric Limbard won first place in the undergraduate research poster competition. Kelley Gallagher won first place for the club share presentation. *Daniel Messick* received the Hammet Memorial Award for Outstanding Club Member. Austin Lohin won third place in the fruit and nuts commodities judging. Other participants include Kate Willoughby and Elliot James. The Club Advisor is *Nate Phillips*.

## Butler's Software Cited in DOE Budget

In order to do nuclear theory computations for carbon-12, the ASCR SciDAC Universal Nuclear Energy Density Functional project needed to scale the application to work with more than the 2000 processors they were used to using. By using the Asynchronous Dynamic Load Balancing (ADLB) library developed by *Dr. Ralph Butler* (CSCI) for Argonne National Labs, it was possible to scale the problem to over 131,000 processors in 2010 and do the full carbon-12 calculations. The resounding success of ADLB with the physics application has earned it a place in the FY2010 Accomplishments of the 2012 congressional budget of the Department of Energy's Office of Advanced Computing Research.



### The Science of Success

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## 2011 Agribusiness and Agriscience Career Fair Best Yet!

The recent MTSU Career Fair for Agriculture students was the best ever! A dozen employers were recruiting students for agribusiness, plant and animal science positions, as well as internships and graduate school opportunities. A new event for seniors, a Career Fair Work-



shop and Etiquette Dinner, was held the evening before the career fair. The Ag Career Fair was sponsored by the Student Agriculture Council, the staff and faculty of the School of Agribusiness and Agriscience, and the MTSU Career Development Center. A special thanks to *Warren Gill* for putting it together.

## Air Traffic Control Simulator

MTSU Aerospace has completed another first—a 360° first-of-its-kind air traffic control (ATC) simulator for training future Air Traffic Controllers. This amazing simulator was de-

signed and installed by Computer Science Corporation. It allows ATC students to control aircraft from gate-to-gate at one of several major airports including Memphis and Nashville and the training airport for control-

lers in Oklahoma City. In addition to teaching, the simulator will support research into the next generation of air traffic management. A ribbon cutting ceremony was held at MTSU on March 14.

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[http://www.mtsu.edu/cbas/basic\\_facts.shtml](http://www.mtsu.edu/cbas/basic_facts.shtml)

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The Basic Facts

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## The Basic B.E.S.T.

(Boastful Educators Sharing Talents)

All departments are invited to submit items for this column

### Agriscience/ Agriscience

The MTSU chapter of Delta Tau Alpha, the agricultural honor society, hosted the 2011 National Convention on campus the weekend of March 4-6. Students and advisors from 11 colleges and universities were represented at the meeting. In addition to the two days of business meetings and seminars, one entire day was devoted to exploring middle Tennessee agriculture and history. Attendees received guided tours of the Stones River National Battlefield, Waterfall Farms, Rising Star Ranch, and the Tennessee Walking Horse Celebration Grounds. In addition to getting to see the Celebration Grounds themselves, attendees reviewed an ongoing alpaca show and received a presentation by a veterinarian involved in the production of alpacas in Ohio.

Participants were treated to an evening of country music entertainment on the General Jackson Showboat on Friday night and ended the Convention with a clogging performance featuring one of the MTSU DTA Chapter members (Andriana Jones) and banquet at the Tennessee Room. The MTSU DTA Chapter sincerely appreciates [Dean Cheatham](#) and [Associate Dean Foroudastan](#) for opening and closing the conference with comments.

[Warren Anderson](#) attended the annual meeting of the Stones River Watershed Association at Patterson Park Community Center. Jimmy Smith (TNDEC) pre-

sented a program on stream pollution in the Stones River Watershed.

### Biology

[Jeffrey Walck](#) along with his Japanese colleagues recently published a paper in the *American Journal of Botany* titled "Seed dormancy in Trillium camschatcense (Melanthiaceae) and the possible roles of light and temperature requirements for seed germination in forests."

### Computer Science

[Suk Jai Seo](#) had a paper published in *Discrete Applied Mathematics*, Volume 159 (2011), pp. 484-489, titled "Open Neighborhood Locating-Dominating in Trees."

### Mathematical Sciences

[Abdul Khaliq](#) serves on the organizing committee for the 2011 International Conference on Control and Automation. The conference will be held in Shanghai, China, on October 28-30.

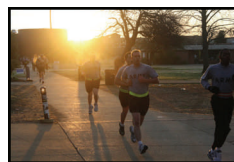
On March 16 a Discrete Math Seminar was held featuring guest speaker, Nawarat Ananchuen, from Silpakorn University in Thailand. The title of his presentation was "On3-( $\gamma_c, 2$ )-critical graphs which are not 3- $\gamma_c$ -critical."

[Abdul Khaliq](#) is one of three Editors-in-Chief of a popular international computational math journal, *International Journal of Computer Mathematics*.

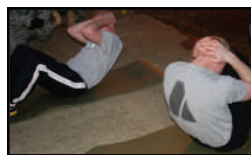
A Research Colloquium was held on March 21, in KOM 206 featuring guest speaker, Dr. Shaoquan Jiang, of the University of Electronic Science and Technology of China. The title of the presentation is "Corruption-Localizing Hashing."

### Military Science

The Army ROTC Blue Raider Battalion held their second Army Physical Fitness Test of the semester on



March 2. The APFT consists of: two minutes of pushups, two minutes of sit-ups, and a timed, two mile run. One can make up to 100 points per event, totaling 300 points if they max each event. The APFT is one of the requirements cadets must pass in order to contract. The cadets did well overall. The cadets who made a 300 or better (on the extended scale) are: Wesley Smitty, Jonita



Larry, and Sadi Swaney. The Blue Raider

Battalion's next APFT will be the record test for the semester, which will be held in April. Come to Forrest Hall and check out other events cadets participate in, including the Blue Raider Battalion Golf Fundraiser occurring on April 14, at Vanderbilt Legends Ridge in Franklin, TN. For more information on how to become a cadet in the Blue Raider

Battalion call: 1-888-MTA-ROTC.

### Physics & Astronomy

**First Friday Star Parties for April, 2011**  
 6:30 p.m., WPS 102 and Outside

**Friday, April 1**  
 "Astronomy Down Under"  
 Charlie Warren  
 (special guest speaker)

**Friday, April 29**  
 "Why Is Your Zodiac Sign Incorrect?" J. Gritton

### CBAS

Computational Science PhD Program

COMS student, Cori Hendon, was accepted for a 10 week summer program in Computational Physics at Los Alamos National Laboratory.

**MSE 7820 PhD Seminar Series**

- March 29-Dr. Joi Spencer, University of San Diego, Title: "Why Are All the Students of Color Sitting at the Back of the Mathematics Classroom?: Teaching Mathematics for Freedom and Opportunity."

- April 5-Dr. Einav Aizikovitsh-Udi, Graduate School of Education, Harvard University, Title: "Developing Critical Thinking Through Probability Models, Intuitive Judgments and Decision-making Under Uncertainty."