



Conference Moderators:

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|-----------------------|-----------|
| • Qingwen Ni | Session 1 |
| • Juan H. Hinojosa | Session 2 |
| • Firooz Khosraviyani | Session 3 |

Conference Judges:

- | | |
|---------------------|-----------|
| • Runchang Lin | Session 1 |
| • Chihiro Oshima | Session 1 |
| • David K. Milovich | Session 2 |
| • Chen-Han Sung | Session 2 |
| • Young-Man Kim | Session 3 |
| • Gerardo J. Pinzon | Session 3 |

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- College of Arts and Sciences
- McGraw-Hill Higher Education
- IEEE Corpus Christi Section (IEEE-CC)
- Texas Space Grant Consortium (TSGC)
- TAMIU Aramark Food Services
- TAMIU Follett Higher Education Group Bookstore
- TAMIU Starbucks Coffee Company
- TAMIU Office of Institutional Advancement
- Pearson Higher Education
- McGraw-Hill Higher Education

Conference Organization Committee:

- Fuming Wu, Chair
- Rohitha Goonatilake
- Chihiro Oshima
- Runchang Lin
- David K. Milovich



THE 2009 FALL STUDENT CONFERENCE

Department of Engineering, Mathematics, and Physics
College of Arts and Sciences
Friday, November 6, 2009
12:00 pm to 7:00 pm
Student Center Room 231

Program

Texas A&M International University
5201 University Boulevard
Laredo, Texas 78041-1900

Department of Engineering, Mathematics, and Physics
The 2009 Fall Student Conference
Friday, November 6, 2009
Program

Friday, November 6, 2009

12:00 pm - 12:20 pm **Welcome & Registration for the Conference**

Session 1: 12:20 pm – 3:10 pm, Room SC 231

Moderator: Dr. Qingwen Ni

(each presentation ends with a few minutes for questions and comments)

12:20 pm - 12:30 pm	<i>Exoplanets</i>	Sara Nuñez, Linda Martinez, Israel Lopez, Noe Gonzalez, and Juan Gallegos
12:30 pm - 12:40 pm	<i>Relations between Fibonacci Sequence and Flowers</i>	Jeffrey Castaneda
12:40 pm - 12:50 pm	<i>Nanotechnology</i>	Rishikesh Baral*
12:50 pm - 1:00 pm	<i>Window Internals</i>	Ravi-Sankar Kanike*
1:00 pm - 1:10 pm	<i>Mars: The Red Planet</i>	Maury Garza, Marco A. Mondragon, Dheeraj Muthyampet, Javier Nunez, Favian Rios, Donica Rodriguez, and Ryan Romero
1:10 pm - 1:20 pm	<i>Pascal's Triangle and Beyond</i>	Julio C. Talamantes*
1:20 pm - 1:30 pm	<i>Game Development</i>	Jeffrey A. Gonzalez
1:30 pm - 1:40 pm	<i>A Brief History of an Amateur Mathematician: Pierre de Fermat</i>	Juan J. Arellano*
1:40 pm - 1:50 pm	<i>1321 Earths</i>	Ana Castillo, Carlos Serna, Francisco Villareal, and Vanessa Garcia
1:50 pm - 2:00 pm	<i>A Search for the Solution to the Rhind Mathematical Papyrus 2/n Unit Fraction Table</i>	René Montemayor*
2:00 pm - 2:10 pm	<i>The History of Civil Engineering</i>	Carlos A. Rodriguez and Kike Villarreal
2:10 pm - 2:20 pm	<i>Engineering Graphics</i>	Luis Perez-Milicus
2:20 pm - 2:30 pm	<i>Particulate Matter Air Quality Analysis and Possible Effects of Increasing Airborne Pollutant on the Human Respiratory System</i>	Christopher J. Gonzales*
2:30 pm - 2:40 pm	<i>Determination of Human Teeth Quality by Nuclear Magnetic Resonance</i>	Alissa Gonzalez and Jose E. Garza*
2:40 pm - 2:50 pm	<i>The Formation of the Solar System</i>	Rogelio Muris, Tony Garza, Ramon Sanchez, Sandra Pruneda, and Maritza Vasquez
2:50 pm - 3:10 pm	Refreshments	

Session 2: 3:10 pm – 5:00 pm, Room SC 231

Moderator: Dr. Juan H. Hinojosa

(each presentation ends with a few minutes for questions and comments)

3:10 pm - 3:20 pm	<i>3-D Surface Position Tracking</i>	Salvador Mendez*
3:20 pm - 3:30 pm	<i>Analysis of Guano Fertilizer</i>	Erik Perez and Juan Herrera
3:30 pm - 3:40 pm	<i>System of Linear Equations and Network Traffic Flow</i>	Sonia Mares
3:40 pm - 3:50 pm	<i>A Caloric and Nutritional Overview of School Lunch Menu for Middle and High School students: Webb County, Laredo, TX</i>	Yuliana L. Alcaraz*
3:50 pm - 4:00 pm	<i>The Dot Product Properties</i>	Fernanda Uribe and Alejandro Ramirez
4:00 pm - 4:10 pm	<i>Seatbelt Enforcer System</i>	Marco Serna*
4:10 pm - 4:20 pm	<i>Fibonacci at TAMIU</i>	Vanessa Ramos
4:20 pm - 4:30 pm	<i>Cross Listings</i>	Madhu Kilari*
4:30 pm - 4:40 pm	<i>Cloud Computing</i>	Sravan Kumar Madadi*
4:40 pm - 4:50 pm	<i>The Aztec Calendar</i>	Daniel Chavez, Emmanuel Ornelas, Joshua Serna, Loui Guerra, Christian Perez, and Linda Bravo
4:50 pm - 5:00 pm	<i>What is A Star All About?</i>	Ana Vargas, Alex Zuniga, Albert Vielma, Robert San Miguel, Carlos San Miguel, Perla Garza, and Coral Flores

Session 3: 5:00 pm – 7:00 pm, Room SC 231

Moderator: Dr. Firooz Khosraviyani

(each presentation ends with a few minutes for questions and comments)

5:00 pm - 5:10 pm	<i>The Beginnings of Differential Equations</i>	Cesar Contreras*
5:10 pm - 5:20 pm	<i>Effect of Humidity on Relative Caterpillar Abundance in Two Acacia Species and Possible Effect of Relative Caterpillar Abundance on Scorpion Predation</i>	Rogelio Olvera*
5:20 pm - 5:30 pm	<i>The Existence of Extraterrestrial Life</i>	Griselda Elizardo, Elizabeth Salazar, Thomas Pressley-Williams, and Audra Martinez.
5:30 pm - 5:40 pm	<i>Black Holes</i>	Gerardo Esqueda, Miguel Garcia, Joshua Gonzalez, Justin Laurel, and Angel Martinez
5:40 pm - 5:50 pm	<i>The Fruit Fell Close to the Tree: Isaac Newton</i>	Ricardo A. Guardiola*
5:50 pm - 6:00 pm	<i>Historical Mathematics in Classrooms</i>	Claudia Vargas*
6:00 pm - 6:10 pm	<i>A History of Elliptic Curves</i>	Tomás Rodriguez*
6:10 pm - 6:20 pm	<i>A History of the Integral</i>	David C. Gomez*

6:20 pm - 7:00 pm Presentation of Awards and Certificates

*Also presenting at the 7th Annual Student Research Symposium to be held at TAMIU on Friday, November 13, 2009 in room SC 230/231.