

| USACAS 2019 Program, June 14-16   |  |  |   |   |   |   |
|---|--|--|---|---|---|---|
| MMC & MEECAS FRIDAY Dinner Presentation   |  |  |   |   |   |   |
| Cubics, Conics, CAS, and a Curious Connection Called "The Most Marvelous Theorem in Mathematics!"<br>Tom Dick (Renaissance Hotel) |  |  |   |   |   |   |
| SATURDAY  |  |  |   |   |   |   |
| Time  |  |  |   |   |   |   |
| 7:30  | Registration (main entrance) and Continental Breakfast (C203-205)  |  |   |   |   |   |
| 8:00 –<br>8:30  | Welcome and Orientation (C203-205)<br><i>Klein, Jakucyn, Hamilton, Reardon, Gapinski, Johnson</i>  |  |   |   |   |   |
| 8:45 –<br>9:45  | Amazing Simultaneous Equations<br><br><i>Flynn (A202)</i>  | CAS in the Math Classroom – It's Not Just For Your Top Students<br><br><i>Klein (A204)</i>   | What's New with CAS on the TI-Nspire and STEM Fun<br><br><i>Bird (A206)</i>               | The Right Tool to Solve the Problem – An Incredible Journey<br><br><i>Diehl (A207)</i>  | Bridging the STEM Acronym: Seamless Integration of Science and Math<br><br><i>Lukens (A208)</i>                         | Coding and STEM (Part 1 of 3)<br><br><i>Hanna (B201-203)</i>                                |
| 9:55 –<br>10:55   | Role of CAS in Developing Ways of Thinking: Mathematical Practices, Mathematical Processes, and Computational Thinking<br><br><i>Heid (A202)</i> | Exploring Sequences and Series with CAS<br><br><i>Schiffman (A204)</i>   | Adding 'Perspective' to Mathematical Learning...Yes You CAS!!<br><br><i>Knapp (A206)</i>  | Using CAS to Help Students Improve Their Understanding of Calculus.<br><br><i>Collins (A207)</i>                                      | Regression: Not Just Fitting Points with Spaghetti<br><br><i>Moran (A208)</i>   | Algebra & Geometry Activities with the TI-Innovator Rover<br><br><i>Gapinski (B201-203)</i> |
| 11:00   | Lunch (Courtyard or Library)   |  |   |   |   |   |
| 12:00 –<br>1:00   | Fluency and Meaning in Solving Equations: A New Lens on Students' CAS Activity<br><br><i>Fonger (A204)</i>                                       | Special Tangent Lines to the Graph of a Polynomial of Degree n<br><br><i>Flynn (A202)</i>  | Teaching Inferential Statistics with Simulations<br><br><i>Sirois (A207)</i>              | A CAS Calculus Graphing Project<br><br><i>Femeyhough &amp; Ashurst (A208)</i>   | Coding and STEM (Part 2 of 3)<br><br><i>Hanna (B201-203)</i>  |   |
| 1:10 –<br>2:10  | From Proof Using Computers to Computer Proof: Reflections on Teaching Proofs in Technological Era<br><br><i>Lyublinskaya (A202)</i>              | Some Exotic Functions and a Formula for Primes<br><br><i>Foerster (A204)</i>   | Understanding Algebra through Visual and Dynamic Representations<br><br><i>Fox (A206)</i> | A Heart for Valentine's Day, Limits for Precalculus and Calculus Students and Superellipses<br><br><i>Lancaster (A207)</i>            | Finding Student Voice: Empowering Students to Ask Better Questions in Science and Math!<br><br><i>Lesniewski (A208)</i> | Engaging Geometry Students with TI-Nspire Technology<br><br><i>Koch (B201-203)</i>          |
| 2:10  | Snack (A217)   |  |   |   |   |   |
| 2:25 –<br>3:25  | Around the Lhuillier Problem<br><br><i>Dahan (A202)</i>  | A Deep Dive into the Quadratic Formula<br><br><i>McCalla (A204)</i>  | Precalculus Activities for TI-Nspire CAS Technology<br><br><i>Parr (A206)</i>             | ClassPad.net: The All-in-one Math Tool<br><br><i>Zamora (A207)</i>  | Make Your Math Class More Engaging with TI Technology<br><br><i>Dicker (A208)</i>                                       | Building Paper Bridges Between Algebra and Physics<br><br><i>Brown (B201-203)</i>           |
| SUNDAY  |  |  |   |   |   |   |
| 7:45  | Continental Breakfast (C203-205)   |  |   |   |   |   |
| 8:30 –<br>9:30  | The Common Core At Nine Years: An Analysis<br><br><i>Usiskin (A202)</i>  | Connecting Physics and Mathematics with Parabolas, Ellipses and CAS<br><br><i>Todd (A204)</i>  | Using CAS in Advanced Functions<br><br><i>Ashurst &amp; Femeyhough (A208)</i>             | Exploring the HP Prime's CAS Including the Algebra of Units<br><br><i>Grasse (A207)</i>   | Coding and STEM (Part 3 of 3)<br><br><i>Hanna (B201-203)</i>  |   |
| 9:40 –<br>10:40   | I Can't Get No Satisfaction Without CAS<br><br><i>Beaudin (A204)</i>   | Intervention Strategies for Struggling Learners in Algebra: CAS to the Rescue!<br><br><i>Lyublinskaya (A202)</i>                       | Exploring Theorems in Geometry with CAS<br><br><i>Fraher (A206)</i>                       | Mathematically Model Data from Al Gore's Climate Reality Project and US Government Global Climate Report<br><br><i>Reardon (A207)</i> | Match the Graph with Robots<br><br><i>Brown (B201-203)</i>  |   |
| 10:50 –<br>11:50  | Cubic Polynomials Are So Interesting<br><br><i>Flynn (A202)</i>  | Employing CAS to Discover Unusual Properties of Polynomial Functions Rarely Covered in Calculus Classes<br><br><i>Schiffman (A204)</i> | Lessons from CAS<br><br><i>Fox (A206)</i>   | Using the CBR-2 Motion Detector to Explore Sinusoidal Functions.<br><br><i>Washburn (A207)</i>  |   |   |
| 12:00   | Lunch & Raffle (C203-205)  |  |   |   |   |   |