Kentucky Section of the Mathematical Association of America
Bellarmine University - March 30-31, 2012

| $\begin{gathered} \hline \text { SATURDAY } \\ 8: 00-11: 00 \end{gathered}$ | Registration / Refreshments/Book Sales Ist Floor of Horrigan Hall |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8:00-11:15 | Origami Exhibit (Horrigan 108) |  |  |  |  |  |
|  | HORRIGAN 102 | HORRIGAN 103 | HORRIGAN 104 | HORRIGAN 105 | HORRIGAN 106 | HORRIGAN 107 |
| 8:00-8:15 | Samantha McKean(u), Luke Yap(u), Daniel Dilger(u), Bruce Kessler(f) WKU <br> The Ricky McCormick Murder Notes I: Background and Initial Attempts at Decoding the Notes | Nathan Gambrell <br> (u) <br> NKU <br> Construction of a <br> Kid Krypto <br> Algorithm |  | Jorge Chang (u) <br> Morehead State U <br> Kentucky Rook: <br> How to Win | Ryan Walls (g) <br> Murray State U <br> A Binary Integer <br> Programming Model for the Optimal Location of Fire Stations: A Case Study of Murray, KY | Ghan Bhatt (f) <br> Tennessee State U <br> Finite Frames in <br> Application |
| 8:20-8:35 | Luke Yap(u), Daniel Dilger(u), Samantha McKean(u), Bruce Kessler(f) WKU The Ricky McCormick Murder Notes II: Background and Initial Attempts at Decoding the Notes | Tyler Clark (g) <br> WKU <br> Continued Radicals and Cantor Sets | Tarah Cole (u) <br> NKU <br> Assessment of Risk <br> Factors for Truancy <br> of Children in Grades <br> K-12 Using Survival <br> Analysis | Zac Bettersworth <br> (u) <br> Georgetown College <br> Space Time <br> Approach to <br> Rafting Trip | James Little (u) \& Jennifer Birriel (f) Morehead State U Long-Term Monitoring of Night-Time Sky Brightness in Morehead KY | Andy Martin (f) <br> Kentucky State U <br> Inconsummate <br> Numbers |
| 8:40-8:55 | Daniel Dilger(u), Samantha McKean(u), Luke Yap(u), Bruce Kessler(f) WKU The Ricky McCormick Murder Notes III: Background and Initial Attempts at Decoding the Notes | David Coulliette (f) <br> Asbury U <br> Rate-Limited <br> Sorption Modeling <br> in Contaminant <br> Transport | Alex McAllister (f) Centre College Mathematics and Drama in Ancient Greece | Tony Bankemper <br> (u) <br> NKU <br> Binary Disruption <br> in Embedded <br> Clusters | Elizabeth Krantz (g) <br> WKU <br> Sharpening the <br> Boundaries of the <br> Sequential Probability <br> Ratio Test | Michael McCord <br> (u) <br> Morehead State U <br> Upper Bounds on <br> Crossing Numbers <br> of Knots in Radius <br> 2 Hextile Knot <br> Mosaics |

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| 9:10-10:00 | 2010 Distinguished Teaching Award Address <br> Christie Perry (Morehead State University) <br> "The Kentucky Core Academic Standards: Opportunity and Challenge" <br> (Amy Cralle Theatre in Wyatt Hall) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10:00-10:25 | ElectionsAmy Cralle Theatre in Wyatt Hall |  |  |  |  |
|  | HORRIGAN 103 | HORRIGAN 104 | HORRIGAN 105 | HORRIGAN 106 | HORRIGAN 107 |
| 10:30-10:45 | William Holbrook II (u) <br> Morehead State U <br> Approaching the <br> Problem <br> Through Composition of <br> Solutions | April York (u) <br> Transylvania U <br> Digit After Digit of <br> Divisibility?: Generating <br> Sequences of Composite <br> Numbers | Russell Brown (f) UK Central Kentucky Mathematics Circles | Zachariah Casey (u) <br> NKU <br> Darboux Springs | Lan Nguyen (f) <br> WKU <br> Taylor Series of Solutions of Differential Equations |
| 10:50-11:05 | Cyrus Hettle (u) \& Robert Schneider (u) <br> UK <br> Al-Jabar: A Mathematical Game of Strategy I | Ronnie Howard (u) <br> Morehead State U <br> Statistical Mechanics and Knot Mosaics | Daniel Curtin (f) NKU <br> The History of the KYMAA | Beth Bradley (f) U of L Using a 3D Finite Volume for the Pressure Gradient Force in Atmospheric Models | Scott Brabon (u), Rebecca Gaul (u), Laura Hochstetler (u) Asbury University Whatever Floats Your Boat |
| 11:10-11:25 | Cyrus Hettle (u) \& Robert Schneider (u) UK Al-Jabar: A Mathematical Game of Strategy II | $\begin{aligned} & \text { Anne Raymond (f), Bill } \\ & \text { Fenton (f) \& Mike } \\ & \text { Ackerman (f) } \\ & \text { Bellarmine U } \\ & \text { A Mathematics Capstone } \\ & \text { Course } \\ & \hline \end{aligned}$ | Robin Blankenship (f) <br> Morehead State U <br> Understanding $\neq$ <br> Remembering | Matias von Bell (u), David Musser (u), Laura Smith (u) <br> Asbury University Leaf it to Math | ryiah Loper (home school student) <br> Wilmore Unit Origami and its Geometry |
| 11:40-12:40 | Invited AddressRobert Devaney (Boston University) "The Fractal Geometry of the Mandelbrot Set"(Amy Cralle Theatre in Wyatt Hall) |  |  |  |  |
| 12:45-1:45 | Luncheon and Business MeetingUniversity Dining Hall Ground Floor of Communications Building |  |  |  |  |
| 1:45 | KYMAA Executive Committee Meeting |  |  |  |  |

