## ISMAA 2013 Annual Meeting Friday Schedule

Bit 11:45 and 1	8.30-11.45 Registration Congress Loung	e Second Floor Auditorium Building			
12:1 Sym 4:4 Sym Registration, Congress Longe, Second Floor, Auditorium Ruiking      12:2 Sym 4:2 Gym Ruidictions and Resur, 11:1 Terret Holdge, University, Hapergraph, 72th Algebras, and Evolution of Metabolic Pathways, Congress Lounge, Second Floor, Auditorium Buiking      14:1 pm 3:15 pm 6:000000000000000000000000000000000000			Univ Integrating Applications of Modern	Discrete Mathematics to Molecular and	d Systems Biology into Mathematics Curricula, Wabash 1016
12:3 Up - 3:2 Up		· · · · · · · · · · · · · · · · · · ·		Discrete Mathematics to Molecular and	a systems blology into wathematics carrieda, wabash 1010
12 Spm - 3:15 pm Concurrent Session:      Wabash Hall 1015      Wabash Hall 1015      2.15 p.m.        Wabash Hall 1016      Wabash Hall 1017      Wabash Hall 1015      2.15 p.m.        Wabash Hall 1016      Nell Wicholoon      Jacob Maatman      Benjamin Knapper      2.15 p.m.        Procher Education Session: CCGM, PARCC, and the Model Curriculum      Protographing Points      The Lost Art of Colculus      Proper Folding 101      2.45 p.m.        Acolatz-Like Iteration      The lost Art of Colculus      Proper Folding 102      2.45 p.m.        Materia Folder Curriculum      Protographing Points      The Effects of G Croce Felicid on o Multi-Strage Varcine      Marroi Croapis      2.45 p.m.        340 pm Concurrent Session:      The Effects of G Croce Felicid on o Multi-Strage Varcine      Matroi Croapis      2.55 p.m.        340 pm Concurrent Session:      Felicided Vichose transformations in Notification      Subgraphs of Ferry Tournament      2.55 p.m.        Toold Olerg      Peter Sandberg      Interdide Vichose transformations in concurrent Session:      Interdide Vichose transformations in concurrent Amathemations in Adapter and application of proto- rising Tournaments      3.50 p.m.        Teacher Education to Roto Calculus Congruent Amathemation in Rotofie for Fainting Tournaments      Interdide Vichose transformation in Rotofie Fourthing Model fo		-	-	as and Evolution of Metabolic Pathway	Congress Lounge Second Floor Auditorium Building
Websch Hull R16      Websch Hull R177      Websch Hull R175      Websch Hull R176      Websch Hull R176      Websch Hull R176      Websch Hull R176      Z      Z      S			an oniversity, hypergraphs, rath riges		
Jim Olen  Nell Nicholson  Jacob Maatman  Benjamin Knapper  2:15 p.m.    Tescher Education Session: CCSM, PARCC, and the Model Curriculur  Phatographing Points  The Lost Ant of Cakulus  Paper Folding 101  2:35 p.m.    Tescher Education Session: CCSM, PARCC, and the Model Curriculur  Vince Matsko  The Eifferts of a Grace Pariod on a Multi-Stage Vaccine  Mary Lifes  2:35 p.m.    1:30 pm 4:30 pm Concurrent Session:  Vince Matsko  Kimberly Grimmer  Peter Draznik  2:35 p.m.    1:30 pm 4:30 pm Concurrent Session:  Kimberly Grimmer  Peter Draznik  2:35 p.m.    1:30 pm 4:30 pm Concurrent Session:  Kimberly Grimmer  Peter Draznik  2:35 p.m.    1:30 pm 4:30 pm Concurrent Session:  Contract-like Iteration  Michael Sostarecz  3:30 p.m.    1:30 pm 4:30 pm Concurrent Session:  Introduction to Ratio Colculur  Cateroider Nelsen trongformations in groups and application of genetic conjecture  n. Aggregation Ranking Model for Tisbing Tournaments  3:30 p.m.    7 Eacher Education Session: Program Changes in Tracher Licensure  Melanie Ploarski  Factorization Reperies of Michael Sostarecz  3:00 p.m.    4:30 p.m. 5: 52 pm Business Meeting, Auditorium Building 10:15  Factorization Reperies of Michael Sostarecz  4:00 p.m.    4:35 pm - 5:45 pm Business Meeting, Auditorium Building 10:15  Factorizatin Rescife Knot Mispoics  4:10 p.m.	· · ·	Wabash Hall 1017	Wabash Hall 1015	Wabash Hall 1016	
Teacher Education Session: COSSM, PARCC, and the Model Curriculum  Photographing Points  The tost Art of Calculus  Paper Folding 101    Teacher Education Session: COSSM, PARCC, and the Model Curriculum  Vince Matsixo  The Effects of Groce Neroid on a Multi Stage Vaccine  Marror Graphs    330 pm-4:30 pm Concurrent Sessions:  A Collatz-Like iteration  Kimberly Grimmer  Peter Dramik  2:55 p.m.    330 pm-4:30 pm Concurrent Sessions:  The Collatz-Like iteration  Minor Graphs  3:30 p.m.    Todd Oberg  Peter Sandberg  Ectended Nielsen transformations in grapping application of genetic congreture  Michael Sostarecz  3:30 p.m.    Teacher Education Session: Program  Interduction to Retio Calculus  Ectended Nielsen transformations in grapping application of genetic congreture  Markael Sostarecz  3:30 p.m.    Teacher Education Session: Program  Melanie Pivarski  Pactorization Program  Andgragation Ranking Model for Fishing Tournaments  3:50 p.m.    Teacher Education Session: Program  Random Walks- How far will you gen Random Walks- How far will you gen Extended Nieske How start  Pactorization Program  4:00 p.m.    Assor Strapher Like Random Walks- How far will you gen Estimation Row Random Strapheres and Neolex Kontastares  4:00 p.m.    Sto Spin Teacher Like Random Walks- How far will you gen Estimate Row Random Walks- How far will you gen Estimate Row Random Rubiding 10:15  5:00 program    Sto Spin Storer,					2:15 n m
Teacher Education Session: CSSM, PARCC, and the Model Curriculum    Vince Matsko    The Effects of a Grace Period on a Multi Stope Vaccine    Mirror Graphs    2:45 p.m.      A Collatz-Like Iteration    Kimberly Grimmer    Peter Draznik    2:55 p.m.      3:30 pm-4:30 pm Concurrent Sessions    Subgraphs of Every Tournament    2:55 p.m.      3:30 pm-4:30 pm Concurrent Sessions    Evere Sandberg    Literation    Subgraphs of Every Tournament    3:30 p.m.      7 Todd Oberg    Peter Sandberg    Literation    Evere Addee Nelsen transformations in gravps and application of genetics of a Grace Every is conference of aggrithms to the Andrews Curlis coljecture    Andgregation Ronking Model for Fishing Tournament    3:30 p.m.      Teacher Education Session: Program Changes in Feacher Literature    Melanie Pivarski    Feachries of Arithmetic Colgecture    Andreana Holowalyj    4:00 p.m.      Andreana Holowalyj    Andreana Holowalyj    4:10 p.m.    4:00 p.m.    5:00 p.m.      445 pm - 5: 45 pm Business Meeting. Auditorium Building 0:1    Evert Solor Solo	Teacher Education Session: CCSSM,				
PARCC, and the Model Curriculum    Vince Masko    The Effects of a Gace Period an a Multi Stage Vaccine    Mirror Graphs    245 p.m.      Multi Stage Vaccine    Kimberly Grimmer    Peter Draznik    255 p.m.      330 pm 4.30 pm Concurrent Sessions    Multi Stage Vaccine    Subgraphs of Every Tournoment    255 p.m.      330 pm 4.30 pm Concurrent Sessions    Extended Nultiplication    Subgraphs of Every Tournoment    230 p.m.      Todd Oberg    Peter Sandberg    Value Maskor Multiplication    Michael Sostarecz    330 p.m.      Todd Oberg    Peter Sandberg    Extended Nicken transformations in groups and application of genetic algorithms to the Andrews: Dit Andre			Katherine Hunzinger	Mary Liles	2:35 p.m.
A Collatz-Like Iteration  Muskrat Multiplication  Subgraphs of Every Tournament    3:30 pm-4:30 pm Concurrent Session:		Vince Matsko		Mirror Graphs	2:45 p.m.
Muskrat Multiplication  Subgraphs of Every Tournament    3:30 pm-4:30 pm Concurrent Session:  Peter Sandberg  Dylan Macuk  Michael Sostarecz  3:30 p.m.    Todd Oberg  Peter Sandberg  Dylan Macuk  Michael Sostarecz  3:30 p.m.    Introduction to Ratio Calculus  Introduction to Ratio Calculus  Extended Nielsen transformations in groups and application of genetic algorithms to the Andrews-Curries  An Aggregation Ranking Model for Fishing Tournaments  3:50 p.m.    Teacher Education Session: Program Changes in Teacher Licensure  Melanie Pivarski  Factorization Properties of Arithmetic Congruence Monidis  4:00 p.m.    Random Walks: How far will you go?  Planar Isotopy and Reidemeister Moves in Hextile Knot Mosaics  4:10 p.m.    4:45 pm -5: 45 pm Business Meeting, Auditorium Building 1015 5:15: Griffer and Tex, Contrest, Auditorium Building 1015			Kimberly Grimmer	Peter Draznik	2:55 p.m.
Todd Oberg    Peter Sandberg    Dylan Macuk    Michael Sostarecz    3:30 p.m.      Introduction to Ratio Calculus    Introduction of gauge and application of antiverse.    Michael Sostarecz    And aggregation Ranking Model for Fishing Tournaments    And apgregation Ranking Model for Fishing Tournaments    A:00 p.m.      Teacher Education Session: Program Creater Liber and Sostare Teacher Liber and Teacher Liber and Teacher Liber application application aproperties of Arithmetic Congrue Andrea Holowatyi    A		A Collatz-Like Iteration	Muskrat Multiplication	Subgraphs of Every Tournament	
Teacher Education Session: Program Changes in Teacher Licensure    Introduction to Ratio Calculus    Extended Nielsen transformations in groups and application of genetic algorithms to the Andrews-Curtis conjecture    An Aggregation Ranking Model for Fishing Tournaments    3:50 p.m.      Teacher Education Session: Program Changes in Teacher Licensure    Melanie Pivarski    Factorization Properties of Arithmetic Congruence Monoids    4:00 p.m.      Random Walks- How far will you go?    Planar Isotopy and Reidemeister Moves in Hextile Knot Mosaics    4:10 p.m.      4445 pm - 5: 45 pm Business Meeting, Auditorium Building 611    Hextile Knot Mosaics    5:15 Coffee and Tea, Congress Louge, Second Floor, Auditorium Building 1015      6:15: Coffee and Tea, Congress Louge, Second Floor, Auditorium Building Education    Education Education Education Education Education Education Education Education Files Floor Rest, Auditorium Building Education    Education Educatio	3:30 pm-4:30 pm Concurrent Sessions				
Introduction to Ratio Calculus    groups and application of genetic algorithms to the Andrews-Curtis conjecture    An Aggregation Ranking Model for Fishing Tournaments    3:50 p.m.      Teacher Education Session: Program Changes in Teacher Licensure    Melanie Pivarski    Factorization Properties of Arithmetic Congruence Monoids    4:00 p.m.      Random Walks- How far will you go?    Planar Isotopy and Reidemeister Moves in Hextile Knot Mosaics    4:10 p.m.      4:45 pm - 5: 45 pm Business Meeting, Auditorium Building 611    4:45 pm - 5: 600 pm Student Contest, Auditorium Building 1015	Todd Oberg	Peter Sandberg	Dylan Macuk	Michael Sostarecz	3:30 p.m.
Teacher Education Session: Program Changes in Teacher Licensure    Melanie Pivarski    Factorization Properties of Arithmetic Congruence Monoids    4:00 p.m.      Andreana Holowatyi    Andreana Holowatyi    4:10 p.m.      Random Walks- How far will you go?    Planar Isotopy and Reidemeister Moves in Hextile Knot Mosaics    4:10 p.m.      4:45 pm - 5: 45 pm Business Meeting, Auditorium Building 611		Introduction to Ratio Calculus	groups and application of genetic algorithms to the Andrews-Curtis		
Teacher Education Session: Program Changes in Teacher Licensure    Factorization Properties of Arithmetic Congruence Monoids      Andreana Holowatyj    4:10 p.m.      Random Walks- How far will you go?    Planar Isotopy and Reidemeister Moves in Hextile Knot Mosaics      4:45 pm - 5: 45 pm Business Meeting, Auditorium Building 611					
Random Walks- How far will you go? Planar Isotopy and Reidemeister Moves in Hextile Knot Mosaics 4:45 pm - 5: 45 pm Business Meeting, Auditorium Building 611 4:45 pm - 6:00 pm Student Contest, Auditorium Building 1015 6:15 pm Student Pizza Party, Auditorium Building 1015 6:15 Coffee and Tea, Congress Lounge, Second Floor, Auditorium Building 6:45 Banquet, Congress Lounge, Second Floor, Auditorium Building 6:45 Banquet, Congress Lounge, Second Floor, Auditorium Building			Arielle Fujiwara		3:50 p.m.
Planar Isotopy and Reidemeister Moves in Hextile Knot Mosaics      4:45 pm - 5: 45 pm Business Meeting, Auditorium Building 611      4:45 pm - 6:00 pm Student Contest, Auditorium Building 1015      6:15 pm Student Pizza Party, Auditorium Building 1015      6:15 coffee and Tea, Congress Lounge, Second Floor, Auditorium Building      6:45 Banquet, Congress Lounge, Second Floor, Auditorium Building	•	Melanie Pivarski	- Factorization Properties of Arithmetic		
4:45 pm- 6:00 pm Student Contest, Auditiorium Building 1015 6:15 pm Student Pizza Party, Auditorium Building 1016 6:15: Coffee and Tea, Congress Lounge, Second Floor, Auditorium Building 6:45 Banquet, Congress Lounge, Second Floor, Auditorium Building	•	Melanie Pivarski	Factorization Properties of Arithmetic Congruence Monoids		4:00 p.m.
6:15 pm Student Pizza Party, Auditorium Builiding 1016 6:15: Coffee and Tea, Congress Lounge, Second Floor, Auditorium Building 6:45 Banquet, Congress Lounge, Second Floor, Auditorium Building	•		Factorization Properties of Arithmetic Congruence Monoids Andreana Holowatyj Planar Isotopy and Reidemeister		4:00 p.m.
6:15: Coffee and Tea, Congress Lounge, Second Floor, Auditorium Building 6:45 Banquet, Congress Lounge, Second Floor, Auditorium Building	Changes in Teacher Licensure 4:45 pm - 5: 45 pm Business Meeting, A	Random Walks- How far will you go? uditorium Building 611	Factorization Properties of Arithmetic Congruence Monoids Andreana Holowatyj Planar Isotopy and Reidemeister		4:00 p.m.
6:45 Banquet, Congress Lounge, Second Floor, Auditorium Building	Changes in Teacher Licensure 4:45 pm - 5: 45 pm Business Meeting, Au 4:45 pm- 6:00 pm Student Contest, Audi	Random Walks- How far will you go? Julitorium Building 611 tiorium Building 1015	Factorization Properties of Arithmetic Congruence Monoids Andreana Holowatyj Planar Isotopy and Reidemeister		4:00 p.m.
	Changes in Teacher Licensure 4:45 pm - 5: 45 pm Business Meeting, Au 4:45 pm- 6:00 pm Student Contest, Audi 6:15 pm Student Pizza Party, Auditorium	Random Walks- How far will you go? uditorium Building 611 tiorium Building 1015 n Building 1016	Factorization Properties of Arithmetic Congruence Monoids Andreana Holowatyj Planar Isotopy and Reidemeister		4:00 p.m.
	Changes in Teacher Licensure 4:45 pm - 5: 45 pm Business Meeting, Au 4:45 pm - 6:00 pm Student Contest, Audi 6:15 pm Student Pizza Party, Auditorium 6:15: Coffee and Tea, Congress Lounge,	Random Walks- How far will you go? Jaitorium Building 611 tiorium Building 1015 n Building 1016 Second Floor, Auditorium Building	Factorization Properties of Arithmetic Congruence Monoids Andreana Holowatyj Planar Isotopy and Reidemeister		4:00 p.m.

## ISMAA 2013 Annual Meeting Saturday Schedule

8:30 am - 11:00 am Registration, Congres	ss Lounge, Second Floor, Auditorium Bu	ilding					
		a New and Improved Theory of Partitions.	Congress Lounge, Second Floor, Auditori	ium Building			
9:45 am - 10:45 am Concurrent Sessions							
Auditorium Building 528	Auditorium Buidling 628	Auditorium Building 306	Auditorium Building 311				
Trevor Grant	Ellen Ziliak	Spencer Havis	Elizabeth Meena	9:45 a.m.			
NeuroEvolution of Augementing Topologies Approach to Neural Networks	Cryptography Applied Abstract Algebra	A Two-Prey, One-Predator Model with Impulsive Effects for Integrated Pest Management	Analysis of Sudoku Variations Using Combinatorial Techniques				
		Farina Kanwal	Martha Arntson	10:05 a.m.			
Jedediah Fajman	Wesley Calvert	The Dynamics of an SVEIR Epidemic Model with Pulse Vaccination	Slicing a Puzzle and Finding the Hidden Pieces	10:15 a.m.			
		Cameron Pombert	Natalia Poniatowska	10:25 a.m.			
Swinging for the Baseball Hall of Fame; Pun Intended	Who can see the Isomorphism?	An Integrated Pest Management Model with Ivlev-Type Functional Response and a Prey Specific Disease	Classifying Quasigroups Using Depth				
11:00 am-12:00 pm Concurrent Sessions			• •				
Robert DiMartino On Cantor-like Sets		Rachel Von Arb Predator Prey Models in Competitive Corporations	Marihan Hegazy The Structure of a State Transition Graph for Boolean Models of Gene Regulatory Networks with Two Feedback Circuits	11:00 a.m.			
		Tarek Elashmawi	Miranda Henderson	11:20 a.m.			
		An SIR Model with Impulsive Vaccination and Rational Incidence Rate	The Dynamics of Frameworks for Two Boolean Models for Gene Regulatory Networks				
		Kiran Munir		11:40 a.m.			
		Effects of a Dynamic Population in a Multi-Stage Vacccine					
12:10 - 1:10 Plenary Talk: Chawne Kimber, Lafayette College, When and How Order Matters When and How Order Matters. Congress Lounge, Second Floor, Auditorium Building							
1:10 Box Lunch Available at Registration							
1:15-3:15 ISMAA Project NExT Post-Conf	erence Session, Cindy Traub, Chair, Aud	itorium Building 528					