

Thursday, June 6, 2019

8:00 am – 2:00 pm Registration, 239 Altgeld Hall

Morning Plenary Session, 314 Altgeld

8:45 am – 9:00 am **WELCOME**

9:00 am – 9:40 am **George Andrews**, *George Beck's conjectures on ranks of partitions*

9:50 am – 10:30 am **Song Heng Chan**, *Ranks of partitions and some identities related to mock theta functions*

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11:00 am – 11:20 am **Michael Hirschhorn**, *Some identities of Ramanujan, Andrews and Berndt*

11:30 am – 11:50 am **Dennis Stanton**, *Comments on cranks and the rank*

12:00 pm – 12:20 pm **Victor Moll**, *Valuations of integer sequences*

Afternoon Plenary Session, 314 Altgeld

2:00 pm – 2:40 pm **Amita Malik**, *Two stopovers in BCB's mathematical journey: Riemann zeta and partitions*

2:50 pm – 3:30 pm **Ken Ono**, *The Jensen-Polya program for the Riemann Hypothesis and related problems*

Public Lecture, 100 Noyes Lab

4:00 pm – 4:50 pm **Bruce Berndt**, *Ramanujan–The Ultimate Superhero*

Friday, June 7, 2019

Morning Plenary Session, 314 Altgeld

- 8:30 am – 9:10 am **Armin Straub**, *On the Gaussian binomial coefficients, the simplest of q -series*
- 9:20 am – 10:00 am **Michael Schlosser**, *The bilateral afterlife of Srinivasa Ramanujan*
- COFFEE & TEA, 239 ALTGELD HALL**
- 10:30 am – 10:50 am **Andrew Sills**, *Rogers–Ramanujan type identities, old and new*
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Contributed Talk Sessions

Session A, 141 Altgeld, Chair: Satyanand Singh

- 11:00 am – 11:15 am **Walter Bridges**, *Kadell-type partition inequalities and applications to sum-product conjectures of Kanade-Russell*
- 11:20 am – 11:35 am **Jiakun Pan**, *Quantum Unique Equidistribution conjecture for Eisenstein series in the level aspect*
- 11:40 am – 11:55 am **Alexander Dunn**, *The twisted second moment of modular half integral weight L -functions*

Session B, 143 Altgeld, Chair: William Keith

- 11:00 am – 11:15 am **Mojtaba Moniri**, *Pairs of relatively long, mod 4 disjoint consecutive runs under Mahler's recurrence*
- 11:20 am – 11:35 am **Jonathan Sorenson**, *Recent work on the Erdős-Selfridge function $g(k)$*
- 11:40 am – 11:55 am **Tsz Chan**, *On the congruence equation $\bar{a} + \bar{b} \equiv \bar{c} \pmod{p}$*

Session C, 145 Altgeld, Chair: Pee Choon Toh

- 11:00 am – 11:15 am **Kagan Kursungoz**, *Andrews-Gordon type series for Schur's partition identity*
- 11:20 am – 11:35 am **Zhu Cao**, *Exact covering systems, quadratic forms, and product identities for theta functions*
- 11:40 am – 11:55 am **James McLaughlin**, *Some observations on Lambert series, vanishing coefficients and dissections of infinite products and series*

Session D, 243 Altgeld, Chair: Bogdan Petrenko

- 11:00 am – 11:15 am **Madeline Dawsey**, *Integer partitions and a conjecture of John Thompson*
- 11:20 am – 11:35 am **Chadwick Gugg**, *Ramanujan's 40 identities for the Rogers-Ramanujan functions*
- 11:40 am – 11:55 am **Satyanand Singh**, *Generating fourth terms of Nathanson's lambda sequences*

Friday, June 7, 2019

Afternoon Plenary Session, 314 Altgeld

1:30 pm – 2:10 pm **Peter Paule**, *Ramanujan, Weierstrass, and Computer Algebra*

2:20 pm – 3:00 pm **Kenneth Williams**, *Ramanujan and ternary quadratic forms*

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3:30 pm – 3:50 pm **Byungchan Kim**, *Partial or false theta series in q -series*

Contributed Talk Sessions

Session A, 141 Altgeld, Chair: Heekyoung Hahn

4:00 pm – 4:15 pm **Nicholas Mayers**, *Integer partition statistics arising from seaweed algebras*

4:20 pm – 4:35 pm **Lakshika Gunawardana**, *A primitive 15-theorem?*

4:40 pm – 4:55 pm **Uha Isnaini**, *On k -restricted overpartitions*

5:00 pm – 5:15 pm **Brandt Kronholm**, *A technique in partitions*

Session B, 143 Altgeld, Chair: Karl Dilcher

4:00 pm – 4:15 pm **Bruce Reznick**, *Equal sums of cubes of quadratic forms.*

4:20 pm – 4:35 pm **Ian Wagner**, *Schwartz functions and modular forms*

4:40 pm – 4:55 pm **Nicolas Smoot**, *Some new identities from the Ramanujan-Kolberg algorithm*

5:00 pm – 5:15 pm **Paul Jenkins**, *The arithmetic of modular grids*

Session C, 145 Altgeld, Chair: Mojtaba Moniri

4:00 pm – 4:15 pm **Fikreab Solomon**, *Zeta functions of nilpotent groups*

4:20 pm – 4:35 pm **Debanjana Kundu**, *On the relation between the classical Iwasawa $\mu = 0$ conjecture and the Coates-Sujatha Conjecture A*

4:40 pm – 4:55 pm **Yeongseong Jo**, *Rankin-Selberg L -functions via Good Sections*

Session D, 243 Altgeld, Chair: Madeline Dawsey

4:00 pm – 4:15 pm **Thomas Tran**, *Secondary terms in asymptotics for the number of zeros of quadratic forms over integers*

4:20 pm – 4:35 pm **Paul Beirne**, *Knots, the colored Jones polynomial and stability*

4:40 pm – 4:55 pm **Sunil Chebolu**, *Mersenne primes and Fermat primes*

5:00 pm – 5:15 pm **Bogdan Petrenko**, *Some properties of nontrivial coefficients of cyclotomic polynomials*

Saturday, June 8, 2019

Morning Plenary Session, 314 Altgeld

8:30 am – 9:10 am **Ae Ja Yee**, *Singular overpartitions and truncated partition theorems*

9:20 am – 10:00 am **Frank Garvan**, *Mock theta functions: yesterday and today*

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10:30 am – 10:50 am **Alexander Berkovich**, *On a q -theoretic approach to Capparelli's partition theorems*

Contributed Talk Sessions

Session A, 141 Altgeld, Chair: Brandt Kronholm

11:00 am – 11:15 am **Hyunsoo Cho**, *A bijection between self-conjugate and ordinary partitions and counting simultaneous cores as its application*

11:20 am – 11:35 am **Louis Kolitsch**, *A pair of congruences for $(3, 5)$ -regular partitions modulo 5*

11:40 am – 11:55 am **Hannah Burson**, *Simultaneous core partitions into k distinct parts*

Session B, 143 Altgeld, Chair: Matt Boylan

11:00 am – 11:15 am **Shin-ya Koyama**, *Applications of Ramanujan's method on the behavior of Euler products to Selberg zeta functions*

11:20 am – 11:35 am **Shane Chern**, *Weighted partition rank and crank moments and Andrews-Beck type congruences*

11:40 am – 11:55 am **Kenneth Stolarsky**, *Rogers-Szego polynomials and products of algebraic numbers*

Session C, 145 Altgeld, Chair: Michael Schlosser

11:00 am – 11:15 am **Meenakshi Rana**, *Combinatorial interpretations of mock theta functions by attached weights*

11:20 am – 11:35 am **Timothy Huber**, *A Ramanujan-Sato series primer*

11:40 am – 11:55 am **Bernhard Heim**, *Ramanujan's τ function and non-sign changes*

Session D, 243 Altgeld, Chair: Robert Schneider

11:00 am – 11:15 am **Arunabha Biswas**, *Search for higher Mahler measure of cyclotomic polynomials.*

11:20 am – 11:35 am **Edna Jones**, *Representations by ternary quadratic forms*

11:40 am – 11:55 am **Pee Choon Toh**, *On a symmetric identity of Ramanujan*

Saturday, June 8, 2019

Afternoon Plenary Session, 314 Altgeld

1:30 pm – 2:10 pm **Ole Warnaar**, *Some (q-)integrals Ramanujan would have liked*

2:20 pm – 3:00 pm **Amanda Folsom**, *Quantum modular forms and applications*

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3:30 pm – 3:50 pm **Soon-Yi Kang**, *Generators of the space of harmonic weak Maass forms*

Contributed Talk Sessions

Session A, 141 Altgeld, Chair: Yeongseong Jo

4:00 pm – 4:15 pm **Robert Schneider**, *Eulerian series and the algebra of partitions*

4:20 pm – 4:35 pm **Brad Isaacson**, *On some elementary character sum identities*

4:40 pm – 4:55 pm **Dennis Eichhorn**, *The differences between $p(n)$, $p(2n)$, and $p(2n + 1)$*

Session B, 143 Altgeld, Chair: Heng Huat Chan

4:00 pm – 4:15 pm **Shashika Petta Mestri**, *Congruences for the partition function $p_{[1^c \ell^d]}(n)$*

4:20 pm – 4:35 pm **Karl Dilcher**, *Infinite products involving Dirichlet characters and cyclotomic polynomials*

4:40 pm – 4:55 pm **Wen-Bin Zhang**, *Exact Wiener-Ikehara theorems and Beurling's generalized numbers*

Session C, 145 Altgeld, Chair: Victor Moll

4:00 pm – 4:15 pm **Pin Hung Kao**, *Almost-prime values of reducible polynomials at prime arguments*

4:20 pm – 4:35 pm **Craig Franze**, *An asymptotic expansion related to the Dickman function*

4:40 pm – 4:55 pm **Emily Stamm**, *An investigation of (nearly) weakly primes*

Session D, 243 Altgeld, Chair: Armin Straub

4:00 pm – 4:15 pm **Wade Hindes**, *Dynamical and arithmetic degrees of random iterates*

4:20 pm – 4:35 pm **Heekyoung Hahn**, *Poles of triple product L-functions of monomial representations*

4:40 pm – 4:55 pm **Seyyed Hamed Mousavi**, *Pentagonal number theorem and zeroes of the Riemann zeta function*

6:00 pm – 9:00 pm Banquet, Alice Campbell Center

Sunday, June 9, 2019

Morning Plenary Session, 314 Altgeld

8:30 am – 9:10 am **Krishnaswami Alladi**, *Parity of the generalized divisor function with restrictions on the prime factors*

9:20 am – 10:00 am **Atul Dixit**, *On values of the Riemann zeta function at odd positive integers*

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10:30 am – 11:10 am **Heng Huat Chan**, *Ramanujan and the partition function $p(n)$*

11:20 am – 11:40 am **Youn-Seo Choi**, *Hypergeometric series in my papers*

11:50 am – 12:10 am **Christian Krattenthaler**, *A joint central limit theorem for the sum-of-digits function, and asymptotic divisibility of Catalan-like sequences*

Afternoon Plenary Session, 314 Altgeld

1:30 pm – 1:50 pm **Liuquan Wang**, *Representations of mock theta functions*

Contributed Talk Sessions

Session A, 141 Altgeld, Chair: Kagan Kursungoz

2:00 pm – 2:15 pm **Hayan Nam**, *How to determine a partition up to conjugation using hook multisets*

2:20 pm – 2:35 pm **Bibekananda Maji**, *Recent developments in the theory of the restricted partition function $p(n, N)$ and $\text{spt}(n, N)$*

2:40 pm – 2:55 pm **Garima Sood**, *A finite analogue of the Beck-Chern theorem and some results on self-conjugate S -partitions*

3:20 pm – 3:35 pm **William Keith**, *(k, j) -colored partitions: congruences and other behaviors*

3:40 pm – 3:55 pm **Oscar Gonzales**, *An observation of Rankin on Hankel determinants*

Sunday, June 9, 2019

Session B, 143 Altgeld, Chair: Song Heng Chan

- 2:00 pm – 2:15 pm **Gaurav Bhatnagar**, *On Entry II.16.12: A continued fraction of Ramanujan*
- 2:20 pm – 2:35 pm **Nilufar Mana Begum**, *Generating functions and congruences for partition functions related to third order mock theta functions*
- 2:40 pm – 2:55 pm **Nankun Hong**, *Rank function and Lambert series*
- 3:20 pm – 3:35 pm **Aubrey Blecher**, *Distinct tuples in integer partitions*
- 3:40 pm – 3:55 pm **Sarah Wesley**, *Generalizations of Fine's iterative identities*
- 4:00 pm – 4:15 pm **Lin Jiu**, *On harmonic sums: integral and matrix representations with connections to partition-theoretic generalization of the Riemann zeta-function and random walks*

Session C, 145 Altgeld, Chair: Chadwick Gugg

- 2:00 pm – 2:15 pm **Douglas Bowman**, *Euler combinatorics for divergent continued fractions after Ramanujan*
- 2:20 pm – 2:35 pm **Herman Schaumburg**, *Partition identities encoded in Ramanujan's three limit continued fraction*
- 2:40 pm – 2:55 pm **Tanay Wakhare**, *Special classes of q-bracket operators*
- 3:20 pm – 3:35 pm **Susan Ficken**, *Asymptotics of the zeros of Fine's function*
- 3:40 pm – 3:55 pm **Larry Ericksen**, *Properties and polynomials related to restricted binary overpartitions*
- 4:00 pm – 4:15 pm **Zafer Selcuk Aygin**, *Ramanujan's convolution sum twisted by Dirichlet characters*

Session D, 243 Altgeld, Chair: Amita Malik

- 2:00 pm – 2:15 pm **Rajat Gupta**, *A Ramanujan-type formula for $\zeta^2(2m+1)$ and its generalizations*
- 2:20 pm – 2:35 pm **Rahul Kumar**, *Zeros of combinations of the Riemann Ξ -function and the confluent hypergeometric function on bounded vertical shifts*
- 2:40 pm – 2:55 pm **Karen Taylor**, *Dirichlet series and generalized Hecke groups*