

3rd International Symposium on Riordan Arrays and Related Topics

June 20-23, 2016

All talks will take place in the Center for Natural Sciences, room C101

Monday, June 20

Registration (open from 8:30) – CNS. C113

Opening Remarks (9:15-9:30) – CNS. C101

Main Lecture (1 hour) Chair: Richard Brualdi

9:30-10:30: **George Andrews**, *4-Shadows in q -series, the Kimberling index, and garden of eden partitions*

10:30-11:00 *Coffee Break*

Contributed Talks (25 minutes each) Chair: Gi-Sang Cheon

11:00-11:25: **Lou Shapiro**, *From trees to generating functions and back using a little group theory*

11:30-11:55: **Sung-Tae Jin**, *An application of Riordan arrays to the transient analysis of queueing models*

12:00-12:25: **Arnauld Mesinga Mwafise**, *Riordan arrays and the solutions of some nonlinear partial differential equations*

12:30-12:55: **Xi Chen**, *Log-concavity and row polynomial matrices of Riordan arrays*

1:00- 2:25 Lunch

Afternoon Session Chair: **Donatella Merlini**

Main Lecture (50 minutes)

2:30-3:30: **Paul Barry**, *Elliptic curves, integer sequences and Riordan arrays*

3:30-4:00 *Coffee Break*

Contributed Talks (25 minutes each)

4:00-4:25: **Manuel Alonso Morón**, *Manifolds of Riordan involutions and time-reversal linear dynamical systems in euclidean spaces*

4:30-4:55: **Hana Kim**, *Symmetry of the zeros of Sheffer polynomials*

5:00-5:25: **Xuntuan Song**, *Unimodality problems in combinatorial triangular arrays*

5:30-5:55: **Ji-Hwan Jung**, *The q -Laguerre polynomials of the q -Sheffer type and their combinatorial interpretation*

Tuesday, June 21

Main Lecture (1 hour) Chair: **Doron Zeilberger**

9:30-10:30: **Richard Brualdi**, *Permutation matrices, alternating sign matrices, and the Bruhat order*

10:30-11:00 *Coffee Break*

Contributed Talks (25 minutes each) Chair: **Ana Luzón**

11:00-11:25: **Donatella Merlini**, *C-finite sequences and Riordan arrays*

11:30-11:55: **Dev Phulara**, *Constructing pseudo-involutions in the Riordan group*

12:00-12:25: **Minho Song**, *A new aspect of the Riordan group via Krylov matrices*

12:30-12:55: **Xiao-Xiong Gan**, *General composition of formal power series and Riordan arrays*

1:00- 2:25 Lunch

Afternoon Session Chair: **Paul Barry**

Main Lecture (50 minutes)

2:30-3:30: **Gi-Sang Cheon**, *A group extension problem of the Riordan group and its applications*

3:30-4:00 *Coffee Break*

Contributed Talks (25 minutes each)

4:00-4:25: **José Ramírez**, *A combinatorial interpretation of the r -Whitney-Eulerian numbers*

4:30-4:55: **Sooyeong Kim**, *Algebraic structure of multivariate Riordan matrices*

5:00-5:25: **Jinze Zheng**, *Duals of Bernoulli numbers and polynomials and Euler numbers and polynomials*

Banquet: Memorial Center, Davidson Room

6:00-7:00: Socializing

7:00-8:00: Dinner

8:00-9:30: Drinks, Dancing, and Socializing

Wednesday, June 22

Excursion to Chicago

7:15 AM: Meet for departure from Illinois Wesleyan at The Gates

10:00 AM: Arrival in Chicago

7:00 PM: Meet for departure from Chicago at the Field Museum

10:00 PM: Arrival at Illinois Wesleyan

Thursday, June 23

Main Lecture (1 hour) Chair: George Andrews

9:30-10:30: **Doron Zeilberger**, *Percy Alexander MacMahon and John Riordan: Two combinatorial giants*

10:30-11:00 *Coffee Break*

Main Lecture (50 minutes) Chair: Gi-Sang Cheon

11:00-12:00: **Ana Luzón**, *Struggling with Riordan involutions formula*

12:00- 1:25 Lunch

Afternoon Session Chair: **Lou Shapiro**

Student Talks (20 minutes each)

1:30-2:30: Student Speakers

2:30-4:30: Open Discussion Time