

# FOURTEENTH INTERNATIONAL CONFERENCE ON FIBONACCI NUMBERS AND THEIR APPLICATIONS

Mathematical Institute UNAM, Morelia, Mexico  
July 5–9, 2010

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## Monday, July 5 – First Day of the Conference

8:30–9:15            Pick up packets and say hello  
9:15–9:30            Welcome and announcements

### Monday Morning Session – moderated by William A. Webb

Time	Title	Author
9:30–9:55	The $k$ -Zeckendorf array	C. Cooper
9:55–10:20	The Wytoff triangle and unique representations of positive integers	C. Kimberling
10:20–10:45	Crossing numbers for Fibonacci distance graphs	H. Harborth
10:45–11:10	Some specific Binet forms for higher-dimensional Jacobsthal and other recurrence relations	C. Cook R. A. Hillman* G. E. Bergum
11:10–11:35	Tetrabons: The fundamental regions of a three-space Zeckendorf representation	P. G. Anderson
11:35–12:00	<i>Coffee Break</i>	
12:00–12:25	Continued fractions consisting of alternating string patterns	R. J. Hendell
12:25–12:50	Non-overlap property of the Thue-Morse sequence	T. Cusick P. Stănică*
12:50–1:15	Representing positive integers as a sum of linear recurrence sequences	N. Hamlin* W. A. Webb
1:15–3:00	<i>Lunch break</i>	

### Monday Afternoon Session – moderated by Florian Luca

3:00–3:25	Cryptography Using Recurrence Sequence Bases	B. Krishnamoorthy Nathan Moyer W. A. Webb*
3:25–3:50	Fibonacci numbers which are sums of three factorials	M. Bollman S. H. Hernández*
3:50–4:15	The sequence $\phi(F_n)/F_n$ is dense in $[0, 1]$	F. Luca V. J. Mejía Huguet* F. Nicolae
4:15–4:40	<i>Coffee Break</i>	
4:40–5:05	Tojjaldi sets: An original idea applicable to first digits in both the Fibonacci and Lucas series	T. Barrale
5:05–5:30	The Electronic <i>Fibonacci Quarterly</i>	K. Dilcher* C. Cooper*
6:00–9:00	<i>Wine &amp; Cheese Reception</i>	

## Tuesday Morning Session – moderated by Peter Anderson

Time	Title	Author
9:30–9:55	Matrices with forbidden submatrices	W. A. Webb*
9:55–10:20	Slicing the Menger Sponge	P. Stockmeyer
10:20–10:45	Lucas sequences with discriminant $-3$ times a square	C. Ballot
10:45–11:10	Large values of some arithmetic functions	M. O. Hernane*
		J. L. Nicolas
11:10–11:35	Arithmetic progressions in the $y$ -coordinates of certain elliptic curves	A. Alvarado
11:35–12:00	<i>Coffee Break</i>	
12:00–12:25	A new characterization of Fibonacci numbers	A. Pínter*
		V. Ziegler
12:25–12:50	About $(a, b)$ -type balancing numbers	K. Liptai
12:50–1:15	Further generalizations of the Fibonacci-coefficient polynomials	M. Ferenc
1:15–3:00	<i>Lunch break</i>	

## Tuesday Afternoon Session – moderated by Clark Kimberling

3:00–3:25	On the nearest integer of the sum of the reciprocals of Fibonacci numbers	T. Komatsu
3:25–3:50	On arithmetic properties of a generalized difference operator	K. Ozeki
3:50–4:15	Optimal Strategy for Defending A Chain in <i>Risk</i>	D. Glass
4:15–4:45	<i>Coffee Break</i>	
4:45–5:10	Musical Compositions with Zeckendorf Representations ( <i>Auditorium</i> )	C. Mongoven* R. Knott

## The Edouard Lucas Invited Lecture

*Auditorium*

5:30–6:30	<i>Combinatorial Trigonometry (and a method to DIE for)</i>	A. Benjamin
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## Wednesday Morning Session – moderated by Curtis Cooper

Time	Title	Author
9:30–9:55	The Combinatorialization of Linear Recurrences	A. Benjamin* H. Derks J. Quinn
9:55–10:20	Block tridiagonal matrices and Fibonacci numbers	A. Yalçiner
10:20–10:45	Generating matrices of $C$ -nomial coefficients and their spectra	E. Kilic P. Stănică*
10:45–11:10	More on Fibonomials	C. Pita
11:10–11:35	Tiling Rectangles, Cylinders, Tori, Möbius Strips, and Klein Bottles	P. G. Anderson
11:35–12:00	<i>Coffee Break</i>	
12:00–12:25	Generalizations of Bernoulli numbers and factorial sums	P. T. Young
12:25–12:50	Extending the GCD Star of David Theorem to more than two GCDs	C. Long
12:50–1:15	Hexahexaflexagons: A mathematical ramble	M. Bicknell-Johnson* C. P. Spears
1:15–1:40	<i>Workshop: Fold your own Hexahexaflexagon</i>	M. Bicknell-Johnson* F. Johnson*
1:40–3:00	<i>Lunch break</i>	

## Wednesday Afternoon

3:00–3:05	<i>Group Photo</i>
3:05–6:00	<i>Organized tour of Morelia</i>
6:30–9:30	<i>Conference Banquet at Restaurant Villa Montaña</i>

## Thursday Morning Session – moderated by Pantelimon Stănică

Time	Title	Author
9:30–9:55	Mod $p^3$ analogues of theorems of Gauss and Jacobi on binomial coefficients	J. B. Cosgrave K. Dilcher*
9:55–10:20	On the binary expansion of the odd Catalan numbers and $p$ -adic congruences for $p^q$ -Catalan numbers	F. Luca P. T. Young*
10:20–10:45	The “Magicness” of powers of some magic squares	M. R. Bacon C. Cook* R. Hillman
10:45–11:10	Large alternating subsets and successions	A. Munagi
11:10–11:35	On odd perfect numbers of special forms	L. Gallardo O. Rahavandrany
11:35–12:00	<i>Coffee Break</i>	
12:00–12:25	On triunitary and tetraunitary numbers	L. Bardomero* D. Iannucci
12:25–12:50	On triunitary and tetraunitary numbers II	L. Bardomero D. Iannucci*
12:50–1:15	Multiperfect Fibonacci numbers	K. Broughan M. González R. Lewis F. Luca* V. J. Mejía Huguet A. Togbé
1:15–3:00	<i>Lunch break</i>	

## Thursday Afternoon Session – moderated by Karl Dilcher

3:00–3:25	Growth Rates of Recurrence Sequences with Periodic Coefficients	Karyn McLellan
3:25–3:50	Asymptotic behavior of solutions to min-max recurrences of higher-order	K. S. Berenhaut E. M. Magargee* S. M. Ravidoux
3:50–4:15	Fibonacci-type piecewise linear recurrences and generalized Ramanujan-Nagell equations	K. S. Berenhaut E. M. Magargee B. Stancil*
3:50–4:15	An Application of Recursive Sequences to Expansions for Distributions of Sums of Random Variables	K. S. Berenhaut R. Hilton*
4:15–4:40	<i>Coffee Break</i>	
4:40–5:05	An Application of Recursive Sequences to Expansions for Distributions of Sums of Random Variables	K. S. Berenhaut R. Hilton*
5:05–5:30	Asymptotic Behavior of Solutions to Symmetric Rational Recurrences	K. S. Berenhaut A. Jones*
6:00–9:00	<i>Mexican fiesta at Florian’s house</i>	

## Friday Morning Session – moderated by Florian Luca

Time	Title	Author
9:30–9:55	Waring type problem involving Fibonacci numbers in fields of prime order	V. C. García* F. Luca V. J. Mejía Huguet
9:55–10:20	Fibonacci numbers divisible by their indices	J. J. Alba González* F. Luca C. Pomerance
10:20–10:45	Fibonacci, Riesel and Sierpiński	F. Luca V. J. Mejía Huguet*
10:45–11:10	Smooth values of $x^2 \pm 2$	S. Guzman
11:10–11:35	Fibonacci numbers which are sums of two repdigits	S. D. Alvarado* F. Luca
11:35–12:00	<i>Coffee Break</i>	
12:00–12:25	Fibonacci Integers	F. Luca* C. Pomerance S. Wagner
12:25–12:50	<i>Problem Session</i>	C. Kimberling
12:50–1:15	<i>Business meeting</i>	W. A. Webb
1:15–3:00	<i>Lunch break</i>	
3:00–6:00	<i>Board meeting</i>	

## Saturday

10:00–5:00      *Trip To Patzcuaro*