60th Birthday of Christian Krattenthaler

Theresia Eisenkölbl, Université Lyon 1

PhD students

PhD students

Christian Friedrich Krattenthaler

MathSciNet

Ph.D. Universität Wien 1983 

Dissertation: *Lagrangeformel und inverse Relationen*

Advisor: Johann Cigler

Students:
Click here to see the students ordered by family name.

Name	School	Year	Descendants
Fulmek, Markus	Universität Wien	1993	1
Schlosser, Michael	Universität Wien	1996	1
Fischer, Ilse	Universität Wien	2000	2
Eisenkölbl, Theresia	Universität Wien	2001	
Rubey, Martin	Universität Wien	2002	
Hasto, Peter	Helsingin yliopisto	2003	4
Stump, Christian	Universität Wien	2008	
Feierl, Thomas	Universität Wien	2009	
Mühle, Henri	Universität Wien	2014	
Neumann, Christoph	Universität Wien	2015	
Thiel, Marko	Universität Wien	2015	
Gilmore, Tomack	Universität Wien	2017	
Sulzgruber, Robin	Universität Wien	2017	

Former PhD students

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Mathematics?

Mathematics?

136. (with T. W. Müller), *A Riccati differential equation and free subgroup numbers for lifts of $PSL_2(\mathbf{Z})$ modulo prime powers*, J. Combin

137. (with A. Kasraoui), *Enumeration of symmetric centered rhombus tilings of a hexagon*, preprint, 48 pages.

139. (with T. W. Müller), *A method for determining the mod-p^k behaviour of recursive sequences*, preprint, 36 pages.

140. (with T. W. Müller), *Generalised Apéry numbers modulo 9*, J. Number Theory **147** (2015), 708-720.

141. (with S. I. Kryuchkov, A. Mahalov and S. K. Suslov), *On the problem of electromagnetic-field quantization*, Int. J. Theoret. Phys. 5

142. (with V. J. W. Guo), *Some divisibility properties of binomial and q-binomial coefficients*, J. Number Theory **135** (2014), 167-184.

143. (with T. W. Müller), *Periodicity of free subgroup numbers of virtually free groups modulo prime powers*, J. Algebra **452** (2016), 372

144. (with M. Ciucu), *A factorization theorem for lozenge tilings of a hexagon with triangular holes*, 20 pages, Trans. Amer. Math. Soc

145. (with M. Fischmann and P. Somberg), *On conformal powers of the Dirac operator on Einstein manifolds*, Math. Zeitschr. **280** (20

146. *Bijections between oscillating tableaux and (semi)standard tableaux via growth diagrams*, J. Combin. Theory Ser. A **144** (2016), 27

147. (with T. W. Müller), *Truncated versions of Dwork's lemma for exponentials of power series and p-divisibility of arithmetic functions*

148. (with S. R. Ghorpade), *Computation of the a-invariant of ladder determinantal rings*, J. Alg. Appl. **14** (2015), Art. 1540014, 24 pag

149. (with R. P. Brent and S. O. Warnaar), *Discrete analogues of Macdonald-Mehta integrals*, J. Combin. Theory Ser. A **144** (2016), 80-

150. (with T. W. Müller), *Free subgroup numbers modulo prime powers: the non-periodic case*, J. Combin. Theory Ser. A **154** (2018), 49

151. (with Andrei Asinowski and Toufik Mansour), *Counting triangulations of some classes of subdivided convex polygons*, Europ. J. C

152. (with C. Schneider), *Evaluation of binomial double sums involving absolute values*, preprint, 36 pages.

154. *Congruences modulo powers of 2 for the number of unique path partitions*, in: Analytic Number Theory, Modular Forms and q-Hy
Proceedings in Mathematics & Statistics, Springer-Verlag, Cham, 2018, pp. 401-408.

155. (with T. W. Müller), *Normalising graphs of groups*, Monatsh. Math. **185** (2018), 269-286.

156. (with T. W. Müller), *Motzkin numbers and related sequences modulo powers of 2*, Europ. J. Combin. **73** (2018), 114-137.

157. (with Cyril Banderier, Alan Krinik, Dmitry Kruchinin, Vladimir Kruchinin, David Tuan Nguyen, and Michael Wallner), *Explicit fo
method*, preprint, 41 pages.

Mathematics?

Theorem 26. *Let m be a positive integer or half-integer. Furthermore, let $\eta = (\eta_1, \eta_2, \dots, \eta_n)$ be a vector of integers in the alcove $\mathcal{A}_m^{\tilde{B}_n}$ of type $\tilde{B}_n$ (defined in (2.3)). Then, as k tends to infinity, the number of random walks which start at η and proceed for exactly k standard steps, which stay in the alcove $\mathcal{A}_m^{\tilde{B}_n}$, is asymptotically*

$$\begin{aligned}
&\frac{4^{n^2}}{2(2m)^n}\left(\frac{\sin\frac{n\pi}{m}}{\sin\frac{\pi}{2m}}\right)^k \prod_{1\le h<t\le n}\left(\sin\frac{\pi(\eta_h-\eta_t)}{2m}\cdot\sin\frac{\pi(t-h)}{2m}\right.\\
&\qquad\left.\cdot\sin\frac{\pi(\eta_h+\eta_t)}{2m}\cdot\sin\frac{\pi(t+h)}{2m}\right)\prod_{h=1}^{n}\left(\sin\frac{\pi\eta_h}{2m}\cdot\sin\frac{\pi h}{2m}\right)\\
&\times\left(\prod_{h=1}^{2n}\frac{\sin\frac{\pi(m-n+h)}{4m}}{\sin\frac{\pi h}{4m}}\prod_{h=1}^{n-1}\prod_{t=1}^{n}\frac{\sin\frac{\pi(m+t-h)}{2m}}{\sin\frac{\pi(n+t-h)}{2m}}+\prod_{h=1}^{2n}\frac{\sin\frac{\pi(m-n+h-1)}{4m}}{\sin\frac{\pi h}{4m}}\prod_{h=1}^{n-1}\prod_{t=1}^{n}\frac{\sin\frac{\pi(m+t-h-1)}{2m}}{\sin\frac{\pi(n+t-h)}{2m}}\right.\\
&\quad+(-1)^{|\eta|+k+\binom{n+1}{2}}\prod_{h=1}^{n}\frac{\cos\frac{\pi(m-n+2h-1)}{4m}\cdot\sin\frac{\pi(m-n+2h)}{4m}}{\cos\frac{\pi(2h-1)}{4m}\cdot\sin\frac{\pi h}{2m}}\prod_{h=1}^{n-1}\prod_{t=1}^{n}\frac{\sin\frac{\pi(m+t-h)}{2m}}{\sin\frac{\pi(n+t-h)}{2m}}\\
&\quad\left.+(-1)^{|\eta|+k+\binom{n}{2}}\prod_{h=1}^{n}\frac{\sin\frac{\pi(m-n+2h-2)}{4m}\cdot\cos\frac{\pi(m-n+2h-1)}{4m}}{\cos\frac{\pi(2h-1)}{4m}\cdot\sin\frac{\pi h}{2m}}\prod_{h=1}^{n-1}\prod_{t=1}^{n}\frac{\sin\frac{\pi(m+t-h-1)}{2m}}{\sin\frac{\pi(n+t-h)}{2m}}\right),\qquad(6.4)
\end{aligned}$$

if m is an integer with parity equal to that of n, it is asymptotically

$$\begin{aligned}
&\frac{4^{n^2}}{2(2m)^n}\left(\frac{\sin\frac{n\pi}{m}}{\sin\frac{\pi}{2m}}\right)^k \prod_{1\le h<t\le n}\left(\sin\frac{\pi(\eta_h-\eta_t)}{2m}\cdot\sin\frac{\pi(t-h)}{2m}\right.\\
&\qquad\left.\cdot\sin\frac{\pi(\eta_h+\eta_t)}{2m}\cdot\sin\frac{\pi(t+h)}{2m}\right)\prod_{h=1}^{n}\left(\sin\frac{\pi\eta_h}{2m}\cdot\sin\frac{\pi h}{2m}\right)
\end{aligned}$$

Mathematics?

No more than seven lines on each slide!

Advice on

Advice on dressing

Advice on dressing

Dressing for mathematics

Advice on dressing

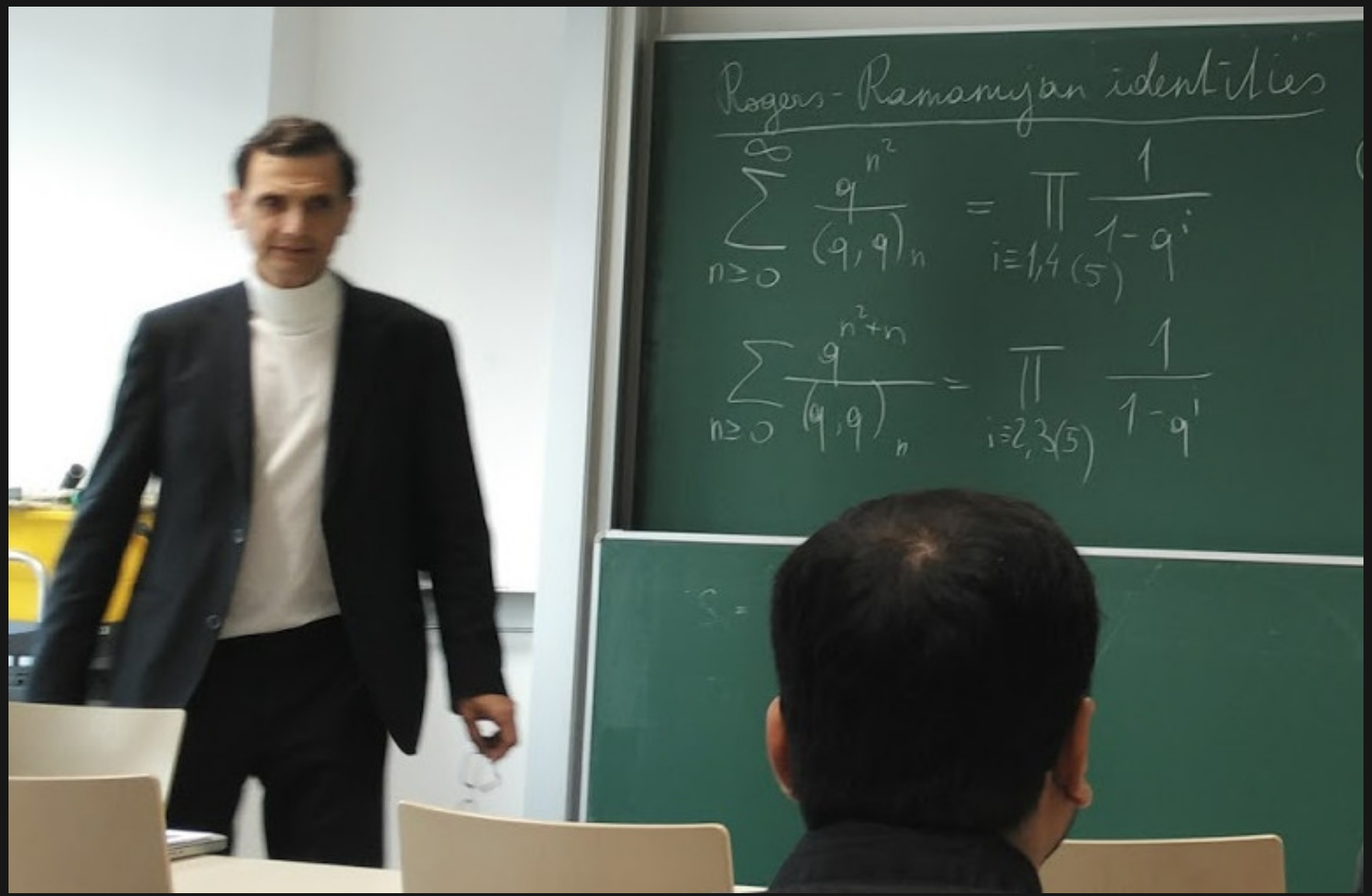
Dressing for mathematics

Dressing for music

Advice on dressing

Every rule has exceptions.

Advice on dressing



Every rule has exceptions.

Advice on

Advice on talking to people

Advice on talking to people

"It is a good idea to talk to people during a bus trip because they cannot run away."

Advise on

~~Advise~~ Advice on

Advice on orthography, typography and TeXnicalities

Advice on orthography, typography and TeXnicalities

Advice on orthography, typography and TeXnicalities

Advice on orthography, typography and TeXnicalities

Advice on

Advice on mobile phones

Advice on mobile phones

"Just don't use them."

Advice on

Advice on conference breaks

Advice on conference breaks

The proper way to spend the lunch break on the hottest day of the year:

Advice on conference breaks

The proper way to spend the lunch break on the hottest day of the year:

Advice on

Advice on fear of public speaking

Advice on fear of public speaking

"This is ridiculous compared to giving a concert in Musikverein."

Advice on

Advice on time management

Advice on time management

It is important not to speak longer than scheduled!

Advice on

Advice on birthdays

Advice on birthdays

???

Happy Birthday!