



Ganda Days in Copenhagen 2026

University of Copenhagen,
August 10-11, 2026
organised by Fabien Pazuki and Morten Risager,
with the support of the CNRS (France), of the Department of
Mathematical Sciences of Copenhagen University (Denmark),
of Aarhus University (Denmark) and of Stellenbosch University (South Africa).

We dedicate this event to the memory of Florian Luca, who was an invited speaker. He was our collaborator, friend, international colleague, and will be deeply missed.

Program

	Monday 10.08	Tuesday 11.08
09:00-10:00	Naina Ralaivaosaona	Patricio Perez Pina
10:00-10:30	<i>Coffee break</i>	<i>Coffee break</i>
10:30-11:30	Simon Kristensen	Asbjørn Nordentoft
11:30-13:00	<i>Lunch</i>	<i>Lunch</i>
13:00-14:00	Anton Fehnker	Wine and Florian Luca
19:00	<i>Dinner</i>	

Titles and abstracts

Time: Monday 10.08, 09:00-10:00.

Room: Aud 7.

Speaker: **Naina Ralaivaosaona** (Stellenbosch Univ.)

Title: *Integer Partitions, Bose-Einstein Condensation, and Inclusion Statistics*

Abstract: The asymptotic study of integer partitions is one of the most fundamental topics in number theory and combinatorics. Among its most famous results is the Hardy-Ramanujan asymptotic formula for the number of partitions of a large integer n . Erdős and Lehner studied the distribution of the number of parts in a uniformly random partition in 1941. Perhaps less well known within the mathematical community is that physicists had already been interested in related questions since the 1930s. It is now well understood that the theory of integer partitions is closely connected to the statistical mechanics of systems of non-interacting particles. In this talk, I will discuss combinatorial models arising from statistical physics and review some of the rigorous mathematical results about them. In particular, I will describe a result of Chatterjee and Diaconis (2014) on fluctuations of the Bose-Einstein condensate, which, as a special case, recovers the classical theorem of Erdős and Lehner. Finally, I will discuss ongoing work on a generalized model known as inclusion statistics, introduced by Alexios Polychronakos and Stephan Ouvry.

Time: Monday 10.08, 10:30-11:30.

Room: Aud 7.

Speaker: **Simon Kristensen** (Aarhus Univ.)

Title: *On the p -adic Littlewood conjecture*

Abstract: The p -adic Littlewood conjecture is the lesser known little brother of the celebrated Littlewood conjecture in Diophantine approximation. In this talk, we will discuss how the combinatorial properties of various expansions of a real number will have to behave in order for the number to be a counterexample to this conjecture. Among other results, we will outline a proof that numbers for which the sequence of digits in base 2 forms a purely morphic sequence satisfy the 2-adic Littlewood conjecture. This is in part joint work with Blackman and Northey.

Time: Monday 10.08, 13:00-14:00.

Room: Aud 7.

Speaker: **Anton Fehnker** (Univ. Copenhagen)

Title: *Explicit counting of ideals in number fields*

Abstract: Estimating the number of integral ideals in a number field, whose norm is bounded by a parameter, is a very classical problem in number theory going back to Weber and Landau. Using methods from the geometry of numbers, we will give an explicit counting result, relying on a careful study of fundamental domains for the action of multiplication by units of infinite order in Minkowski space. With some lattice theory we show that one can make different choices for such a fundamental domain, which yield a smaller error for the estimated ideal count, especially when the degree of the field extension is large.

Time: Tuesday 11.08, 09:00-10:00.

Room: Aud 7.

Speaker: **Patricio Perez Pina** (Univ. Copenhagen)

Title: *Distribution of CM Drinfeld modules*

Abstract: Let $\mathbb{C}_\infty$ be the completion of an algebraic closure of $\mathbb{F}_q((T^{-1}))$. Drinfeld $\mathbb{F}_q[T]$ -modules of rank 2 over $\mathbb{C}_\infty$ can be seen as the analogue of elliptic curves over $\mathbb{C}$. In this talk, we describe the asymptotic proportion of CM Drinfeld $\mathbb{F}_q[T]$ -modules over $\mathbb{C}_\infty$ reducing to a fixed irreducible component of the rigid-analytic reduction of the Drinfeld modular curve. This can be interpreted as a positive-characteristic/rigid-analytic analogue of classical distribution results for CM elliptic curves. This is joint work with Matías Alvarado (Universidad de Talca).

Time: Tuesday 11.08, 10:30-11:30.

Room: Aud 7.

Speaker: **Asbjørn Nordentoft** (Univ. Copenhagen)

Title: *Diophantine rank stability via horizontal p -adic L -functions*

Abstract: Let G be a finite abelian group and $A/\mathbb{Q}$ an abelian variety defined over the rationals. Then a basic question in arithmetic statistics asks to understand when the rank of $A(F)$ equals that of $A(\mathbb{Q})$ when $F/\mathbb{Q}$ varies over abelian G -extensions. In this talk I will explain an approach that relies on L -functions using the theory of horizontal p -adic L -functions.

This is based on joint work with Marius Fischer and Daniel Kriz.

Time: Tuesday 11.08, 13:00-14:00.

Room: Aud 7.

We will share a glass of wine and some memories of Florian Luca.

Time: Florian Luca had accepted to come and deliver a talk during this event. This is the title and abstract that he sent us on July 11, 2026.

Speaker: **Florian Luca** (Stellenbosch Univ.)

Title: *Carmichael numbers of special forms*

Abstract: A Carmichael number is a composite positive integer N which behaves like a prime number with respect to Fermat's Little theorem; that is $a^N - a$ is a multiple of N for all integers a . It is known that there are infinitely many such numbers. In this talk, we will explore such numbers which have the form $2^n k + 1$ for some odd integer k . The questions we can ask are. Fix k . What can we say about the numbers n such that $2^n k + 1$ is Carmichael? Or, what can we say about the odd positive integers k such that $N = 2^n k + 1$ is Carmichael number for some positive integer n ? We will give some partial answers to these questions.