

Introduction to p-adic numbers and p-adic integrals

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Lecture 1: Rationality of generating series via p-adic integration

Antoine Chambert-Loir, Johannes Nicaise, Julien Sebag
Motivic Integration
Progr. Math., Birkhauser, 2018

Jan Denef,
The rationality of the Poincaré series associated to the p-adic points on a variety.
Invent. Math. 77 (1984), no. 1, 1–23.

Jan Denef,
p-adic semi-algebraic sets and cell decomposition.
J. Reine Angew. Math. 369 (1986), 154–166.

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p-adic and motivic integration
Lecture Notes for Arizona winter school 2003
<https://webusers.imj-prg.fr/~francois.loeser/newari.pdf>

Lecture 2: Applications to birational geometry

Antoine Chambert-Loir, Johannes Nicaise, Julien Sebag
Motivic Integration
Progr. Math., Birkhauser, 2018

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<https://webusers.imj-prg.fr/~francois.loeser/newari.pdf>

Lecture 3: Uniformity patterns for p-adic integrals

Raf Cluckers, Francois Loeser

Constructible motivic functions and motivic integration

Inventiones Mathematicae 173, 23-121 (2008)

Raf Cluckers, Francois Loeser

Constructible exponential functions, motivic Fourier transform and transfer principle

Annals of Mathematics 171, 1011-1065 (2010).

Raf Cluckers, Francois Loeser

Ax-Kochen-Eršov theorems for p-adic integrals and motivic integration

Geometric methods in algebra and number theory, 109–137,

Progr. Math., 235, Birkhäuser 2005