A set partition approach to an inverse of the Faà di Bruno formula

MON/P2
17:00–17:20

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The Faà di Bruno formula is a higher-derivative chain rule, in its simplest version involving just two univariate functions. It can be given in a variety of forms, some of them exhibiting how the proof will reduce to an enumeration of partitions of sets.

This talk focusses on the same approach for an inverse of the formula, i.e., the problem is to express the derivatives $g^n(f(x))$ in terms of $(g(f(x))^i, i = 1, \ldots, n$. It will also address the case of multivariate f, where some open questions remained.

The accompanying paper to this talk has been published in [1]. This work has been supported by the Austrian Science Foundation (FWF), Project S9609, part of the Austrian National Research Network “Analytic Combinatorics and Probabilistic Number Theory”.

[1] G. PIRSIC: Integers: Electronic Journal of Combinatorial Number Theory. 7, A34.