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Fakultät für
Mathematik, Informatik
und Naturwissenschaften

Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

Dienstag, 3. Dezember 2019

17 Uhr s.t., Geom H4

Prof. Dr. Dominique Manchon
(CNRS und Université Clermont-Auvergne)

Renormalization of multiple zeta values and their q-analogues

Abstract:

Multiple zeta values are real numbers which appeared in depth one and two in the work of L. Euler in the Eighteenth Century. They first appear as a whole in the work of J. Ecalle in 1981, as infinite nested sums. A systematic study starts one decade later with M. Hoffman, D. Zagier and M. Kontsevich, with multiple polylogarithms and iterated integral representation as a main tool. I shall first put this fascinating family of numbers in historical perspective, and then explain how a definition (by no means unique) can be given through Hopf-algebraic renormalization techniques when the nested sum diverges. Finally, I shall introduce a model of q-analogues for multiple zeta values, and describe the algebraic structure which governs them.

Vor dem Vortrag (ab 16.30 Uhr) stehen im Raum 327 Kaffee und Tee bereit.