FRANÇOIS BERGERON, Université du Québec à Montréal

A (q,t)-Overview of q-analogs

By a simple homogenization process, one may turn a q-analog into a symmetric (q,t)-analog. Although simple, this bijective correspondence makes many concepts and identities become more natural, and proofs follow readily from classical properties of symmetric functions in two variables. A more intricate non-homogeneous extension is also developed. We illustrate this approach, revisiting recent developments in the study of γ-positivity, Lucas analogues, and the monoid of Cyclotomic generating functions. This also leads naturally to new constructions and conjectures. We further explore other avenues of investigations, included graded and equivariant γ-positivity and γ-anti-positivity (also known as alternatingly γ-positive).