

Objet : Combinatoires algébriques ; Euclidean algorithm and related topics.

The Euclidean algorithm is a process which, starting with two polynomials, or two series, produces a double sequence α_i, β_j while doing the division in increasing exponents of x . By introducing different combinatorial objects, and varying our point of view, we have almost avoided any computation, and related the algorithm to different classical topics of mathematics, like continued fractions, symmetric functions, resultant of two polynomials, and Motzkin Paths & Dyck Paths (Catalan Number).