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Amelie Trotignon* (amelie.trotignon@idpoisson.fr). *Walks in the three-quarter plane.*

Enumeration of lattice walks in cones has many applications in combinatorics and probability theory. These objects are amenable to treatment by many techniques: combinatorics, complex analysis, probability theory, computer algebra and Galois theory of difference equations. While walks restricted to the first quadrant have been well studied, the case of non-convex cones has been approached recently. In this talk, we extend the analytic method of the study of walks in the quarter plane to the three-quarter plane applying the strategy of splitting the domain into two symmetric convex cones. This method is composed of three main steps: write a system of functional equations, which may be simplified into one simple equation under symmetry conditions; transform the functional equation into a boundary value problem; and solve this problem using conformal mapping. The result is a contour integral expression for the generating function. The advantage of this method is the uniform treatment of models corresponding to different step sets. (Received September 10, 2019)