Title: Enumeration of particular paths

Abstract

In this work we propose to enumerate certain particular paths defined in N*N by:

$C(x,y)=C(x-2, y)+C(x-1, y-1)+C(x, y-2), \quad x>2, y>2$

$C(1, y)=C(0, y-2)+C(1, y-2)$

$C(0, y)=1 \quad y=0, 2, 4, ...$

$C(y, y)=C(y-2,y)+C(y-1, y-1)$

$C(y, y-2)=0$

We thus establish an array of values from which we form sequences of well-known numbers, notably a sequence of numbers already encountered in [1] by G.Kreweras Where it is a question of counting uncrossed partitions of a cycle.

We also find a link with the sequence of numbers known and studied by Euler.