## Christian Ballot Divisibility of the Middle Lucasnomial Coefficient, Fibonacci Quart. 55 (2017), no. 4, 297–308.

## Abstract

Pomerance established several theorems about the number of integers n for which n + k divides the binomial coefficient  $\binom{2n}{n}$ , k a given integer. We conduct a similar inquiry about the number of integers nfor which  $U_{n+k}$  divides  $\binom{2n}{n}_U$ , where U is a fundamental Lucas sequence and  $\binom{2n}{n}_U$  the corresponding middle Lucasnomial coefficient. In a final digression, we argue that central Fibonomials prime to 105 should be about as rare as middle binomial coefficients prime to 105, and we compute the first few examples.