

ADDENDUM TO

"Second Derivative Sequences of Fibonacci and Lucas Polynomials"

by

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In the above paper [1], the proof of Proposition 9 was inadvertently omitted. It reads as follows:

**Proof of Proposition 9:** From (1.8) we have

$$\begin{aligned}
 C_n &= \sum_{i=0}^n F_i^{(1)} F_{n-i} = \frac{1}{5} \left( \sum_{i=0}^n i L_i F_{n-i} - \sum_{i=0}^n F_i F_{n-i} \right) \\
 &= \frac{1}{5} \sum_{i=0}^n i F_n + \frac{1}{5} \sum_{i=0}^n i (-1)^i F_{n-2i} - \frac{1}{5} \sum_{i=0}^n F_i F_{n-i}.
 \end{aligned}
 \tag{5.11}$$

From (5.1) and (5.3), (5.11) can be rewritten as

$$\begin{aligned}
 C_n &= \frac{1}{10} [n(n+1)F_n] - \frac{1}{25} (nL_{n+1} + 2F_n) - \frac{1}{25} (nL_n - F_n) \\
 &= \frac{1}{50} [5n(n+1)F_n - 2F_n - 2nL_{n+2}] = \frac{1}{50} [(5n^2 - 2)F_n + 5nF_n - 2nL_{n+2}] \\
 &= \frac{1}{50} [(5n^2 - 2)F_n - n(2L_{n+2} - 5F_n)] = \frac{1}{50} [5n^2 - 2)F_n - 3nL_n] = F_n^{(2)} / 2. \quad \square
 \end{aligned}$$

**Additional comment:** With regard to Conjectures 1-7 in [1], some of which were known by us to be true, we wish to record that, in private correspondence with us, both Richard André-Jeannin and David Zeitlin have independently established the validity of these Conjectures.

REFERENCE

1. P. Filipponi & A. F. Horadam. "Second Derivative Sequences of Fibonacci and Lucas Polynomials." *The Fibonacci Quarterly* **31.3** (1993):194-204.

