

# A Class of Completely Monotonic Functions Related to the Remainder of Binet's Formula with Applications \*

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## Abstract

In the note, the complete monotonicity of difference between remainders of Binet's formula and the star-shaped and subadditive properties of the remainder of Binet's formula are proved.

**Keywords and Phrases:** *Completely monotonic function; Star-shaped function; Subadditive function; Remainder; Binet's formula; Gamma function.*

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