Stable Equivalence Over Symmetric Functions

William Y. C. Chen and Arthur L. B. Yang

Abstract: By using cutting strips and transformations on outside decompositions of a skew diagram, we show that the Giambelli-type matrices for a given skew Schur function are stably equivalent to each other over symmetric functions. As a consequence, the Jacobi-Trudi matrix and the transpose of the dual Jacobi-Trudi matrix are stably equivalent over symmetric functions. This leads to an affirmative answer to a question proposed by Kuperberg.

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Keywords: Giambelli-type matrix, Jacobi-Trudi matrix, dual Jacobi-Trudi matrix, stably equivalent, outside decomposition, cutting strip, twist transformation.

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