

Enhancing Fairness in College Football Playoff Rankings: A Stochastic Multicriteria Acceptability Analysis Approach

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Abstract: Given the high financial and institutional stakes of College Football Playoff (CFP) selections, concerns over subjectivity, transparency, and consistency in ranking decisions remain prominent. This study presents the first known application of Stochastic Multicriteria Acceptability Analysis (SMAA) to rank National Collegiate Athletic Association (NCAA) football teams under both the 2024–2025 and 2025–2026 CFP selection policies. Using 27 performance-based criteria, SMAA produced probabilistic outcomes for the top 25 teams. Comparative analysis and statistical validation revealed significant differences across models, particularly for bubble teams and first-round bye allocations. The findings offer a data-driven framework to support more transparent CFP decision making.

Keywords: College Football Playoff (CFP); Stochastic Multicriteria Acceptability Analysis (SMAA); Team Rankings; Sports Analytics; Decision Analysis

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