

Predicting Football Matches Results with PoARX-Copula Models

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Abstract

In this work we integrate Poisson Autoregressive with Exogenous Covariates and Copula (PoARX-Copula) models for predicting the results of the 2022/23 Football Premier League Season matches in England. We evaluate and compare the forecasts obtained with distinct dependence settings for scored goals by home and away teams. In addition, we test the use of several covariates to explain the strengths and weaknesses of the opponents. Finally, we assess how the use of copulas affects the predictions of the matches results, since the assumption of independence between home and away number of scored goals is common in this context. In our results we see that taking into account the dependence produces improvement in forecasting accuracy.

Keywords: football results, copulas, PoARX, predictions, Premier League.

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