

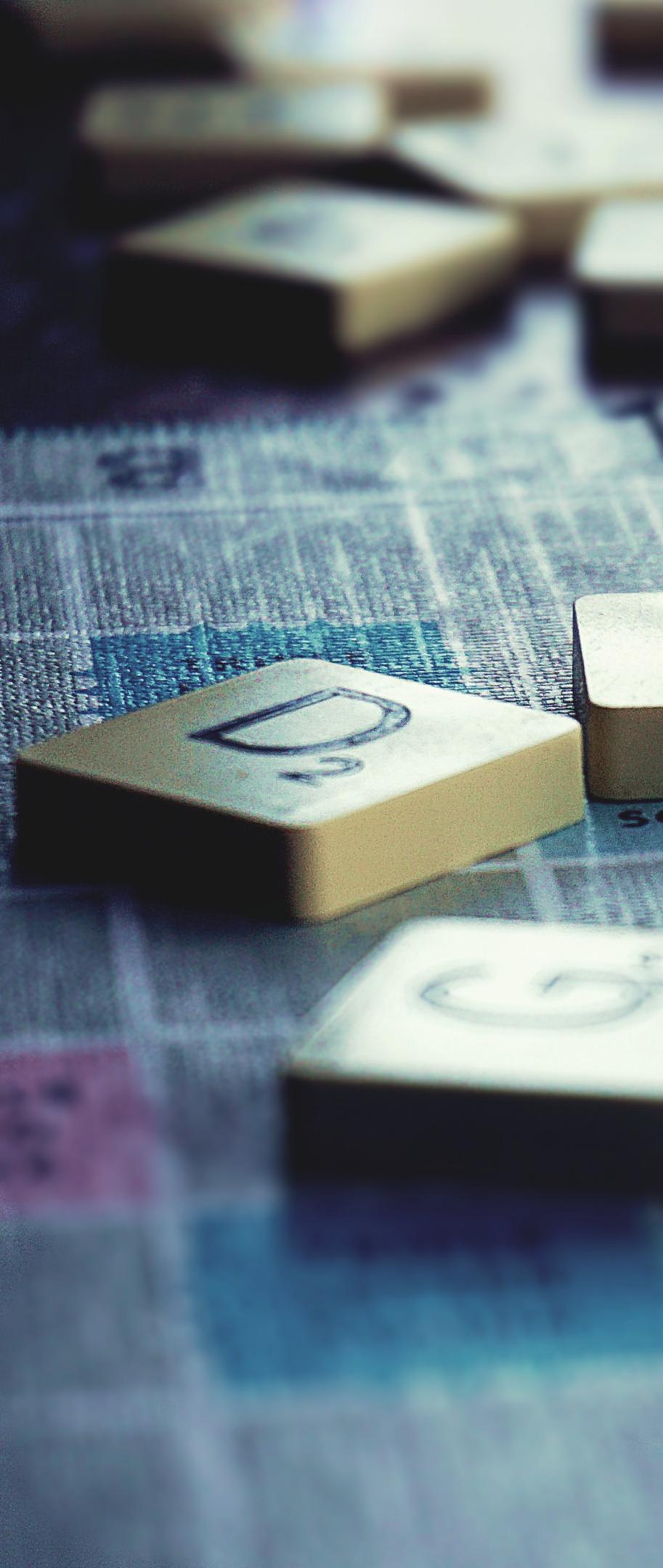


NONPARAMETRIC STATISTICS
A.Y. 2023-2024

ON BOARD GAMES AND HOW TO BUILD THEM: A STUDY ON THE NEXT BEST BOARD GAME



**COLOMBO STEFANIA
D'AMICANTONIO SILVIA
LANCELLOTTI FEDERICO**



DATASET DESCRIPTION



Datasets come from the
BoardGameGeek database
containing relevant features.



Data are collected for games
released **between 1950 and 2022**.



Additional **daily data snapshots**
are available for each year from
2016 to the present.

GOALS OF THE PROJECT



Popularity

Can we characterise the most popular games in terms of features such as: theme, complexity, number of players, length...



Trends

Is there any trend?
Do we expect some categories to be more popular in the coming months?



Testing

Is our characterisation consistent if we specialised it on the most promising categories in terms of trends?



Prediction

Are we able to select a few interesting projects from Kickstarter, to be proposed to the shareholders?

TENTATIVE ANALYTIC WORKFLOW

Testing and **GLM/GAM** to select the most relevant features that characterise the most popular games. Can we make use of a **depth measure**?

FDA techniques on the 2500+ daily snapshots of the data available and **analysis on trends** for the popularity and the rank in terms of game category.

Random forest based model, to be compared to the previous results. Manual selection of ~20 Kickstarter projects and **model prediction**.