APPLIED DATA ANALYSIS
DATASPORT

ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE

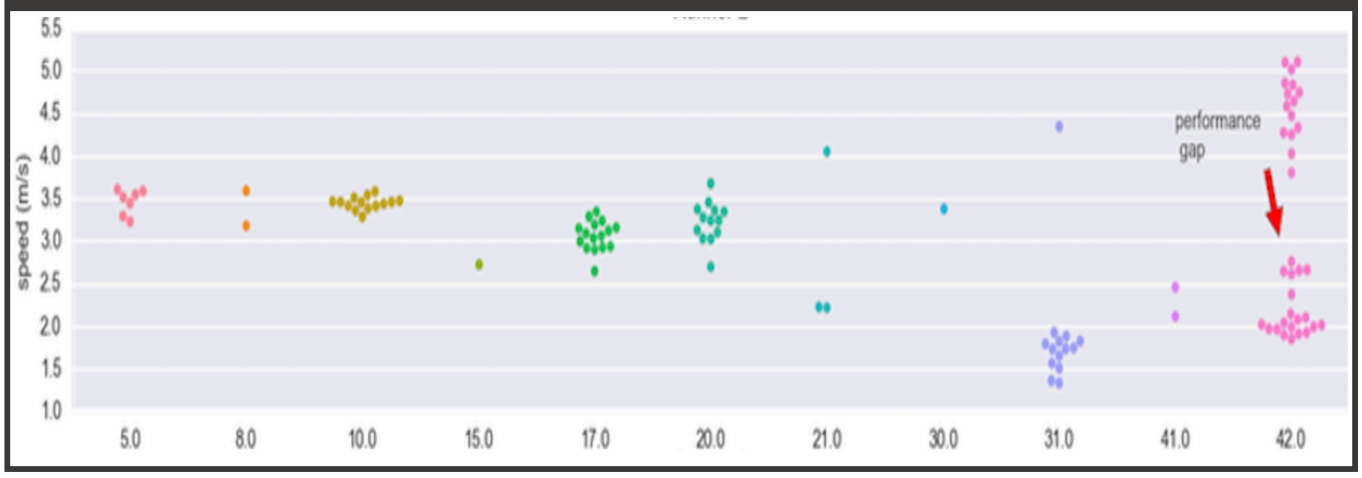
ADA
APPLIED DATA ANALYSIS

HTTPS://ANTITOINE.GITHUB.IO/ADAEPFL-PROJECT/

WHY TO FOCUS ON SOME SELECTED RUNNERS?

- **Identification of externals factors**: do they have impact on individual performance?
- **Individualization of the study** to discover some patterns
- **Visualization of multiple factors** that could explain gaps of performance

SAME RUNNER, BUT DIFFERENT PERFORMANCE



Well, that's interesting.
For some runners, there is sometimes enormous disparity between average speeds during races of same length.

INDIVIDUALIZATION OF THE STUDY

To individualize the study, **we computed some 'coefficients' for each interesting feature**. For instance, if the coefficient related to temperature is positive for a given race, it means that the temperature was higher for this specific race than the temperature of the race where the runner obtained his best performance.

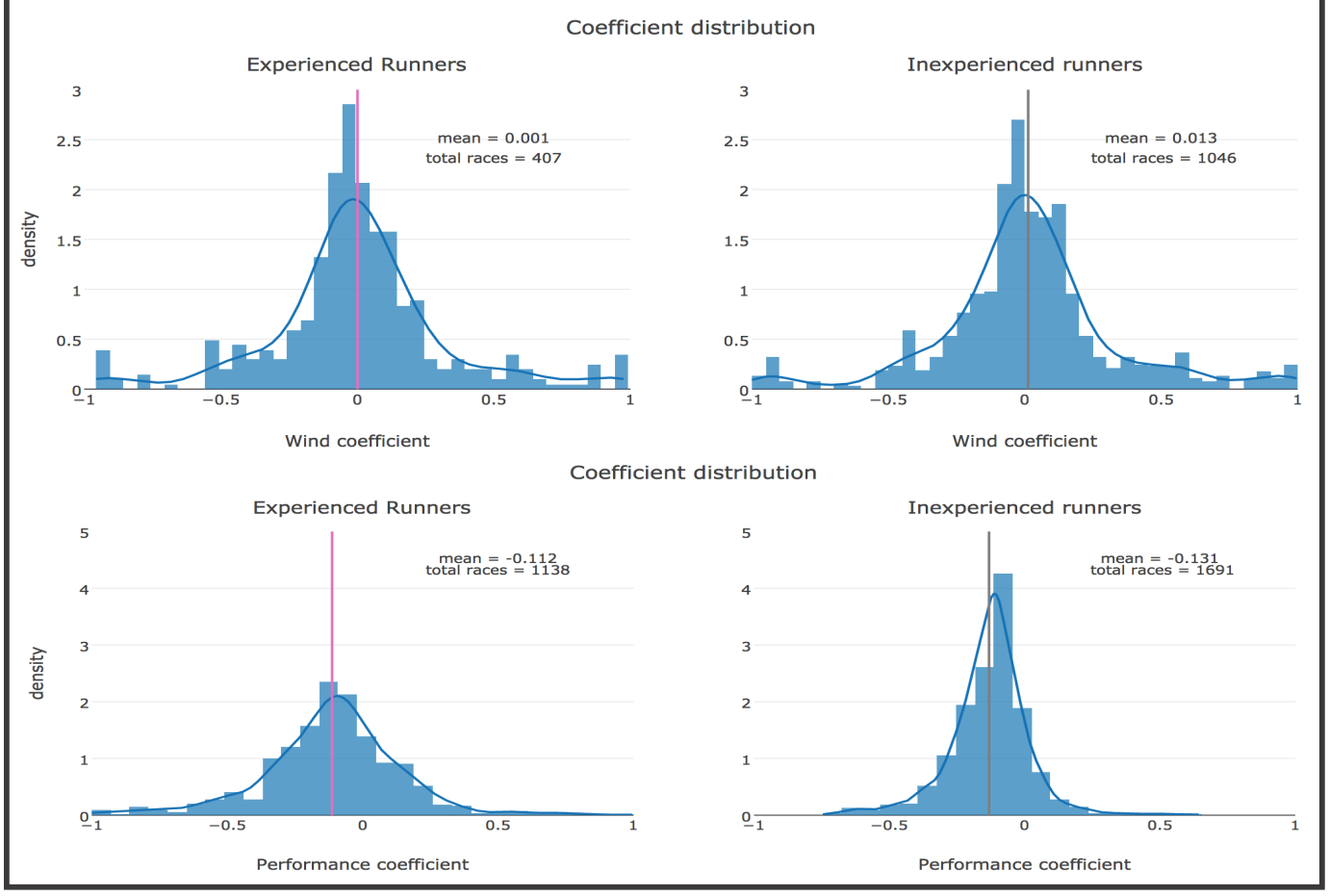
REMARKS

Here are some results we've got.

Among other things, disparities exist because each runner is unique and reacts differently. Moreover,

- **runners seem to obtain their best performance when they are younger and when the temperature is warmer;**
- **they also obtain their best performance when they race less kilometres in a given year and in comparison with other ones;**
- **it seems that there is a rebound for the wind coefficient both in the positive and negative side; this could be explained by the fact that if wind blows hard in the back, it could have positive impact on the performance and vice versa (however, average has no impact).**

COEFFICIENTS DISTRIBUTION



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