Introduction

Motivation

The Finnish ice hockey league “Liiga” is the top professional competition in Finland. The result is the most concerning problem for many stakeholders who are interested in this competitive league. We would like to predict Liiga’s result in order to find the winner of the whole competition. In addition, we also want to design the optimal betting portfolio within the total budget of 1000 euros that maximize the investment as well as minimizes the risk.

Problem description

The Finnish ice hockey league “Liiga” has 15 teams, who each play 60 games (30 at home and 30 away) during the regular season. Regular season ended at 10.3.2018 and preliminary playoffs ended at 17.3.2018. The result of regular season can be seen in the Figure below (Source: liiga.fi)



The preliminary playoffs which known as Wild-card round (best of 3) is between:

* SaiPa vs Pelicans (7th vs 10th)
* Lukko vs Ässät (8th vs 9th)

The results of preliminary playoff is:

* SaiPa 2 – Pelican 1
* Ässät 2 – Lukko 0

After the results from preliminary playoffs, we have name for 8 teams to the quarter-finals. Our task is to final the possibility of winning chance for each team through each round and provide the optimal portfolio for the budget of 1000 euros.

We have the match list for quarter-finals after preliminary playoffs

|  |  |  |  |
| --- | --- | --- | --- |
| Series: Kärpät – Ässät 4-1 | | | |
| 20.03.2018 | Kärpät | Ässät | ? - ? |
| 22.03.2018 | Ässät | Kärpät | ? - ? |
| 24.03.2018 | Kärpät | Ässät | ? - ? |
| 26.03.2018 | Ässät | Kärpät | ? - ? |
| 28.03.2018 | Kärpät | Ässät | ? - ? |
| 29.03.2018 | Ässät | Kärpät | ? - ? |

|  |  |  |  |
| --- | --- | --- | --- |
| Series: TPS – SaiPa 4-2 | | | |
| 20.03.2018 | TPS | SaiPa | ? - ? |
| 22.03.2018 | SaiPa | TPS | ? - ? |
| 24.03.2018 | TPS | SaiPa | ? - ? |
| 26.03.2018 | SaiPa | TPS | ? - ? |
| 28.03.2018 | TPS | SaiPa | ? - ? |
| 29.03.2018 | SaiPa | TPS | ? - ? |

|  |  |  |  |
| --- | --- | --- | --- |
| Series: Tappara – KalPa 4-2 | | | |
| 21.03.2018 | Tappara | KalPa | ? - ? |
| 23.03.2018 | KalPa | Tappara | ? - ? |
| 24.03.2018 | Tappara | KalPa | ? - ? |
| 26.03.2018 | KalPa | Tappara | ? - ? |
| 28.03.2018 | Tappara | KalPa | ? - ? |
| 29.03.2016 | KalPa | Tappara | ? - ? |

|  |  |  |  |
| --- | --- | --- | --- |
| Series: JYP – HIFK 2-4 | | | |
| 21.03.2018 | JYP | HIFK | ? - ? |
| 23.03.2018 | HIFK | JYP | ? - ? |
| 24.03.2018 | JYP | HIFK | ? - ? |
| 26.03.2018 | HIFK | JYP | ? - ? |
| 28.03.2018 | JYP | HIFK | ? - ? |
| 29.03.2016 | HIFK | JYP | ? - ? |

Objectives and expected results

The ultimate objective is to find the final winner of the whole season. The expected results will be published before the final match in order to assist decision making for betting portfolio. We hope that our prediction for the final winner will be right as well as the betting advices will be optimal.