LFN - Project contribution of each member

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The project has been developed with these percentages of contribution from each member:

- Aessandro Chimetto: 33%
- Alberto Rigon: 33%
- Luca Scattolaro: 33%

In order to equally divide the work among all the members, we divided the project in 3 parts related to 3 different types of measures.

- **Centrality Measures**: The centrality measures have been assigned to Alberto Rigon.
  The idea was to use the `networkx` library for exact computations and to implement the approximate centralities using the methods seen during the course. Such implementations followed in detail the algorithms on the original papers. However, due to the size of the graph, we did not manage to compute the exact version of the betweenness centrality in time for the deadline.
- **Clustering Coefficients**: Clustering Coefficients have been assigned to Luca Scattolaro.
  The idea, as it was written in the project proposal, was to implement the algorithms that we have seen in class (both the exact ones and also the approximate ones). Thanks to the low computational time needed for the computation of the exact values, we just reported them in the paper but we left the code for the approximations.
- **Motifs**: Motifs have been assigned to Alessandro Chimetto.
  The initial idea was to calculate the exact values of the motifs; however, the algorithm required too much time for the computation, and so we decided to use an approximation suggested by the professor as we reported in the report.

Obviously, some of these tasks were more difficult than others, but all the members spent roughly the same amount of time on the project, helping running the code, searching online for possible interesting papers and so on.

We also had many issues when running the algorithms to compute centralities, because they required a lot of days of execution on the *Twitch Gamers Social Network* graph. It happened many times that PyCharm (one of the IDEs that we used) crashed by itself during execution, making us losing days of work; moreover, we also lost a lot of time due to power blackouts during the execution of these programs.