

1. History of implementation of ELO in chess using the rating of chess players past and present

This will focus on how the Elo equation was initially implemented, and the level of understanding depending on their knowledge of chess. Specifically what the Elo stood for in terms of understanding at that time as well as the different sections and their meanings.

2. Comparison to current ELO divisions also using the rating of chess players past and present

Here I would like to supplement some data on current ratings of top players as well as the agreed upon range of different player levels and compare it against how it was historically.

3. Elo Equation from Arpad Elo book

Now I'd like to jump into the equations from Arpad Elo's book on Elo and use it to show how the algorithm works in a general sense. As well as how it explains the likelihood of different level players winning matches.

4. Wikipedia comparison equation

From here I want to compare the more general equation from Arpad Elo's book and compare it to the equation on Wikipedia which tells of the precise Elo change from game to game.

5. Implementation of equation – how the equation works to start, as well as for experienced players using data from chess.com / lichess.org

Then implement the equation and take a look at summations of the equation to see what it would look like long term. Getting a look at how long it would take for a strong chess player to reach their accurate strength, and perhaps a bot that never loses and see what would eventually happen there.

6. Elo and how it represents chess knowledge and understanding using the rating of chess players past and present / chess.com and lichess.org

From there I would like to look more in depth how the Elo represents the strength of chess players past and present. How over time with the assistance of computers we have increased the upper end of chess knowledge. How this increased knowledge has increased the range of Elo and also how important it is that in the system of Elo everyone must have the same starting value. Example of chess.com and lichess.org and how one starts at 1500 and the other 1200, which then SKUs the inherit strengths of their players.