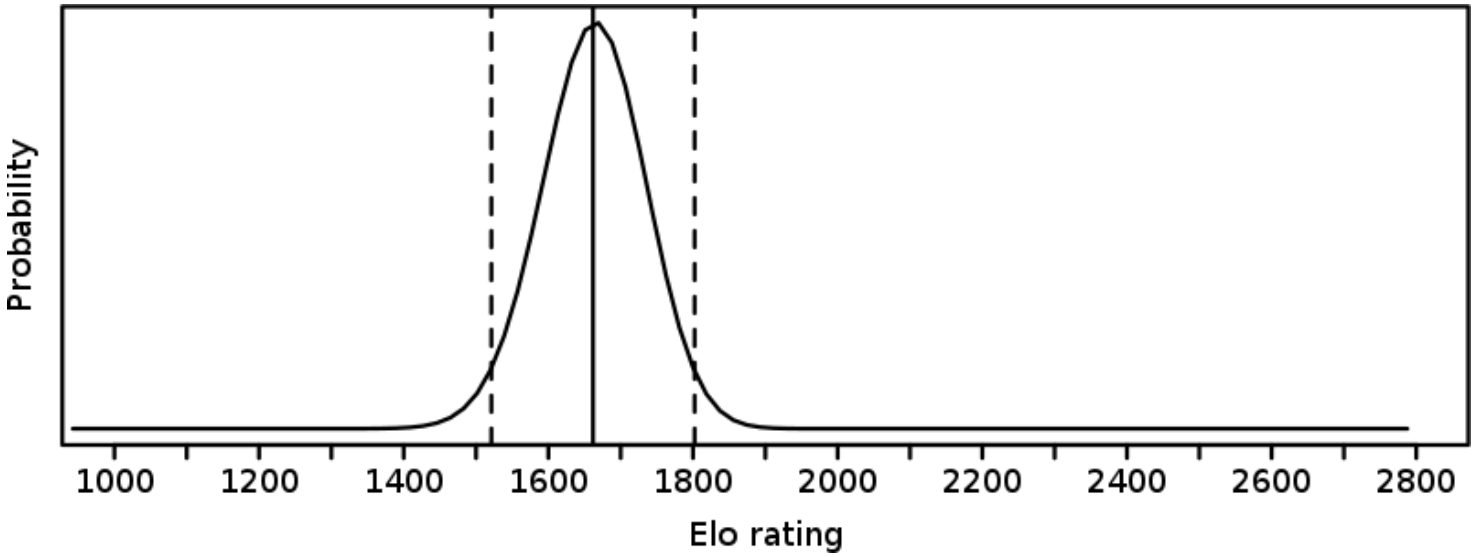
Elometer

HEINRICH HEINE UNIVERSITÄT DÜSSELDORF

Thank you for participating!

Based on your move choices, our estimate of your Elo rating is **1662**, with a 95% confidence interval of **[1521...1802]**.



How did we arrive at this estimate?

We used item response theory (or "latent trait theory"; Hambleton, Swaminathan, & Rogers, 1991) to derive an estimate of your playing strength based on your answers to a set of chess problems with known properties. To arrive at this estimate, we employed the two-parameter Birnbaum model (Lord, 1980) which allows items to differ a) in difficulty and b) in discriminatory power. The set of chess problems we used was taken from the "Amsterdam Chess Test" developed by van der Maas & Wagenmakers (2005), who presented their chess problems to a sample of 259 participants at a Dutch open tournament. The national Elo rating of these participants ranged from 1169 to 2629. Using a subset of the items of this test (the Choose-A-Move item set A and B), we were able to compute a maximum likelihood estimate of your ELO rating based on a prediction formula regressing the latent ability estimates of the Birnbaum model on the ELO ratings of the comparison sample. Using the test information function, we were also able to compute a 95% confidence interval for this estimate.

Thank you very much for dropping by! We hope you enjoyed our test. If so, please recommend it to other fellow chess players.

Would you also like to test your endgame chess knowledge? Then we kindly invite you to our new endgame knowledge test.

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References

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Lord, F. M. (1980). *Applications of item response theory to practical testing problems.* Mahwah, NJ: Lawrence Erlbaum.

van der Maas, H.L., & Wagenmakers, E.J. (2005). A psychometric analysis of chess expertise. *American Journal of Psychology*, *118*, 29-60.