

Kirjallisuusluettelo liittyy seminaariin ”**Tilastotieteen ja tekoälyn tarjoamat mahdollisuudet vedonlyöntisijoittamisessa ja urheilun mallintamisessa**” sekä laajemmin urheiluviedonlyönnin tilastollisiin ja ekonometrisiin malleihin. Lisätiedot: Henri Nyberg (etunimi.sukunimi@utu.fi).

Urheiluviedonlyönnin yleisteoksia (suomeksi)

VUOKSENMAA, J., Kuronen, A. ja Nåls, J. (1999). Urheiluviedonlyönti – voittajan opas. Gummerus, European Sports Betting Consultants Oy.

VUOKSENMAA, J. (2016). Pelaajalta pelaajille. Unibet Group.

... ja aihetta täydentäviä teoksia (suomeksi)

ANDERSON, C. ja D. SALLY (2013). Numeropeli. HS Kirjat. (alkuperäisteos: The Numbers Game. Why Everything You Know About Football Is Wrong)

KAHNEMAN, D. (2017). Ajattelu, nopeasti ja hitaasti. Terra Cognita. (alkuperäisteos: Thinking, Fast and Slow)

... ja englanniksi

CHRISTIANSEN, A. (2019). Prediktioner av Allsvenskan fotbollsmatcher. Lund University.

DOBSON, S. ja GODDARD, J. (2011). The Economics of Football. 2. painos. Cambridge University Press.

HAUSCH, D.B., SY LO, V., ZIEMBA, W.T. (2008). Efficiency of Racetrack Betting Markets (World Scientific Handbook in Financial Economics).

KHARRATA, T., McHALE, I.G., and J.L. PENA (2020). Plus–minus player ratings for soccer. European Journal of Operational Research, 283, 726 - 736

MAY, P. (2013). In the Search of the Winning System. Raceform Ltd.

PULLEIN, K. (2009). The Definitive Guide to Betting on Football. Racing Post.

RUNQUIST, W. (1995). Baseball by the Numbers: How Statistics Are Collected, What They Mean, and How They Reveal the Game. McFarland.

WONG, C.X. (2011). Precision: Statistical and Mathematical Methods in Horse Racing. Outskirts Press.

Muutamia hyödyllisiä linkkejä

[Killersports.com](https://killersports.com)

[Whoscored.com](https://whoscored.com)

[Understat.com](https://understat.com)

[Covers.com](https://covers.com)

Regressio- ja ennustemalleja (erityisesti jalkapalloon liittyen)

CROWDER, M., DIXON, M., LEDFORD, A. ja ROBINSON, M. (2002). Dynamic modelling and prediction of English football league matches for betting. *Statistician*, 51, 157 - 168.

DIXON, M.J. ja COLES, S.G. (1997). Modelling association football scores and inefficiencies in the football betting market. *Journal of Royal Statistical Society Series C*, 46, 265 - 280.

DOBSON, S. ja GODDARD, J. (2003). Persistence in sequences of football match results: A Monte Carlo analysis. *European Journal of Operational Research*, 148, 247 - 256.

KARLIS, D. ja NTZOUFRAS, I. (2003). Analysis of sports data by using bivariate Poisson models. *Statistician*, 52, 381 - 393.

GODDARD, J. (2005). Regression models for forecasting goals and match results in association football. *International Journal of Forecasting*, 21, 331 - 340.

GODDARD, J. ja ASIMAKOPOULOS, I. (2004). Forecasting football results and the efficiency of fixed-odds betting. *Journal of Forecasting*, 23, 51 - 66.

KOOPMAN, S.J. ja LIT, R. (2015). A dynamic bivariate Poisson model for analyzing and forecasting match results in the English Premier League. *Journal of Royal Statistical Society Series A*, 178, 167 - 186.

RUE, H. ja SALVESEN, O. (2000). Prediction and retrospective analysis of soccer matches in a league. *Statistician*, 49, 399 - 418.

Erikseen markkinoiden tehokkuudesta

DIXON, M.J. ja POPE, P.F. (2004). The value of statistical forecasts in the UK association football betting market. *International Journal of Forecasting*, 20, 697 - 711.

GANDAR, J., ZUBER, R., O'BRIEN, T. ja RUSSO, B. (1988). Testing rationality in the point spread betting market. *Journal of Finance*, 43, 995 - 1008.

GOLEC, J. ja TAMARKIN, M. (1991). The degree of inefficiency in the football betting market: Statistical tests. *Journal of Financial Economics*, 30, 311 - 323.

GRAY, P.K. ja GRAY, S.F. (1997). Testing market efficiency: Evidence from the NFL sports betting market. *Journal Finance*, 52, 1725 - 1737.

KONING, R.H. (2012). Regression tests and the efficiency of fixed odds betting markets. *International Journal of Sport Finance*, 7, 262 - 274.

POPE, P.F. ja PEEL, D.A. (1989). Information, prices and efficiency in a fixed-odds betting market. *Economica*, 56, 323 - 341.

THALER, R.H. ja ZIEMBA, W.T. (1988). Anomalies: Parimutuel Betting Markets: Racetracks and Lotteries. *Journal of Economic Perspectives*, 2, 161 - 174.

VLASTAKIS, N., DOTSIS, G. ja MARKELLOS, R.N. (2009). How efficient is the European football betting market? Evidence from arbitrage and trading strategies. *Journal of Forecasting*, 28, 426 - 444.

Asiantuntijoiden ja vedonvälittäjien tuottamasta ennusteinformaatiosta

FORREST, D., GODDARD, J. ja SIMMONS, R. (2005). Odds-setters as forecasters: The case of English football. *International Journal of Forecasting*, 21, 551 - 564.

FORREST, D. ja SIMMONS, R. (2000). Forecasting sport: The behaviour and performance of football tipsters. *International Journal of Forecasting*, 16, 317 - 331.

FRANCK, E., VERBEEK, E. ja NUESCH, S. (2010). Prediction accuracy of different market structures - bookmakers versus a betting exchange. *International Journal of Forecasting*, 26, 448 - 459.

“Favourite-longshot bias”

CAIN, M., LAW, D. ja PEEL, D. (2000). The favourite-longshot bias and market efficiency in UK football betting. *Scottish Journal of Political Economy*, 47, 25 - 36.

SNOWBERG, E. ja WOLFERS, J. (2010). Explaining the favorite-long shot bias: Is it risk-love or misperceptions? *Journal of Political Economy*, 118, 723 - 746.

Kelly-kriteeristä optimaaliseen panostukseen liittyen

KADANE, J.B. (2011). Partial-Kelly strategies and expected utility: Small-edge asymptotics. *Decision Analysis*, 8, 4 - 9.

KELLY, J.L. Jr. (1956). A new interpretation of information rate. *Bell System Technical Journal*, 35, 917 - 926.

MACLEAN, L.C., THORP, E.O. ja ZIEMBA, W.T. (2010). Long-term capital growth: The good and bad properties of the Kelly and fractional Kelly capital growth criteria. *Quantitative Finance*, 10, 681 - 687.

Rahoitus, koneoppiminen ja johdannaiset

GUIDA, T (2019). *Big Data and Machine Learning in Quantitative Investment*, Wiley.

de PRADO, M.L. (2018). *Advances in Financial Machine Learning*. Wiley

LONDON, J. (2004). *Modeling Derivatives in C++*. Wiley.