Developing an Improved Tennis Ranking System

In June 2013, members of the ATASS Sports research team presented a paper titled ‘Developing an Improved Tennis Ranking System’ at the 4th International Conference on Mathematics in Sport (MathSport International) in Belgium.

This is the text of the final abstract for the paper presented by David Irons, Stephen Buckley and Tim Paulden.

Sports ranking systems are often viewed as inadequate for judging the quality of the teams or players involved. Meanwhile, statistical models have been shown to produce more accurate ratings for those competitors, based on their ability to forecast future results. However, whilst predictive power is a desirable property of any official ranking system, these systems must also be fair, transparent and insensitive to bias. Additional requirements may also be required, such as promoting major tournaments and deciding seedings. By considering rankings for ATP tennis players, we propose that statistical models can be used to improve the existing ranking system, in such a way that the resulting rankings are fair and usable by the governing body. In many cases, there is a trade-off between predictive power and other desirable properties, and so compromise is required to produce a system that can be implemented successfully.

For further information on the conference go to www.mathsportinternational.com