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**James R Henderson\*** (jrh66@psu.edu). *Statistics, Past Champions, and the Most Important Points in Tennis.*

Given the hierarchical scoring system in tennis (matches are broken up into points, games, and sets), not all points are equally valuable. Indeed, in roughly 5% of professional matches, the winner wins fewer points than the loser (games, in this sense, are also not all created equal). This has spawned discussion among commentators for the last century about which points are most important. Similar conversations have arisen about the most important games and even sets, but only in the last few decades has computer technology made a mathematical analysis of these issues tractable. This analysis has implications for strategy: for instance, should players “coast” on some points and give extra effort on others? Interestingly, modern analysis has addressed only one sense of the term ‘point’, when, historically, it has been used in several senses. Because of this, the views of Bill Tilden, one of the greatest players (and analysts) in the history of the game, are left out of the conversation. In the light of modern research, the views of Tilden and others on the most important points, games, and sets will be assessed, as well as Tilden’s thoughts on strategy with respect to “taking points off” and what he takes to be the characteristic mark of a champion. (Received August 11, 2015)