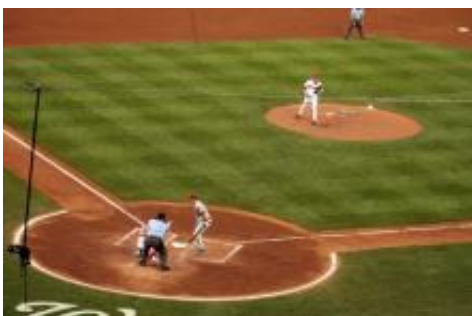# NJIT mathematician releases 2014 Major League Baseball projections

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As Opening Day rapidly approaches for most Major League Baseball teams, NJIT Associate Professor of Mathematical Sciences Bruce Bukiet has prepared his annual MLB projections for the upcoming season. And, to the chagrin of loyal Mets fan Bukiet, New York's National League club looks to be in store for a disappointing year. Bukiet, who developed a mathematical model for calculating expected MLB win totals that was published in Operations Research, forecasts a mere 68 wins and a last-place finish for the Metropolitans.

Bukiet's model can be used to project the number of games a team should be expected to win, the optimal batting order for a set of 9 batters, and how trading players will likely influence a team's number of wins. "This all began when I, because I am not very big or powerful, set out to prove that a singles hitter who gets on base frequently would

contribute more to winning than a slugger who strikes out a lot," Bukiet recalls. "What I found was the opposite—the slugger will generate more wins."

For the 2014 season, Bukiet's model pegs Boston, Detroit, and Oakland as American League Division winners, with Anaheim and Seattle narrowly edging Tampa Bay and the New York Yankees in the AL Wildcard chase. In the National League, the numbers say St. Louis, Washington, and Los Angeles will take the top spots in their respective divisions. San Francisco and Atlanta are predicted to fill the Wildcard slots.

"There are some unknowns that the model can't incorporate in projecting team win totals before the season, such as rookie performance and trades that have not yet occurred, but, sadly for my Mets, the forecasts have been very accurate," Bukiet noted. In fact, Bukiet's preseason expectations for the Mets have been within 3 games of the win total attained by the team in 9 of the last 10 seasons.

Of his annual projections, Bukiet said, "I publish these to promote the power and relevance of math. Applying mathematical models to things that people care about or enjoy, like baseball, shows that math can be fun as well as very useful."

A listing of Bukiet's 2014 expected win totals for each MLB team can be found below, and his daily projections are posted at http://www.egrandslam.com.

National League

Washington	94
St. Louis	95

Los Angeles	95
Atlanta	90
Milwaukee	86
San Francisco	88
Philadelphia	79
Cincinnati	82
Arizona	83
Miami	69
Pittsburgh	76
San Diego	82
New York Mets	68
Chicago Cubs	57
Colorado	67

American League

Boston	96
Detroit	99
Oakland	93
Tampa Bay	86
Kansas City	82
Anaheim	87
New York Yankees	86
Cleveland	80
Seattle	87
Toronto	82
Chicago White Sox	65
Texas	85

Baltimore	73
Minnesota	63
Houston	55

Provided by New Jersey Institute of Technology

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