

Analytics Conference
March 7-9, 2013







# Major League Baseball' PROUDLY SUPPORTS THE 2013 SABR ANALYTICS CONFERENCE





#### Welcome!

The Society for American Baseball Research has a long and storied history with baseball statistical analysis, evidenced by the link between our name and sabermetrics. While SABR is a multi-faceted organization involved in virtually every aspect of baseball, last year we took a major step to re-connect with our beginnings by producing and hosting our inaugural analytics conference.

## SABR Analytics Conference presented by Major League Baseball and Bloomberg Sports

This year we have made the event even bigger and better. This event is a natural for SABR. Never before have as many of the top minds of the baseball analytic community come under one roof to discuss, debate and share insightful ways to analyze and examine the great game of baseball.

The SABR Analytics Conference begins Thursday, March 7 at the Walter Cronkite School of Journalism and Mass Communication at ASU and continues on Friday and Saturday, March 8 and 9 at the Sheraton Phoenix Downtown. The schedule will consist of a combination of Guest Speakers, Panels and Research Presentations — plus the Diamond Dollars Case Competition presented by YarcData, in which graduate and undergraduate students will analyze and present a real baseball operations decision.

Our long history in this area of baseball research, coupled with our mission of advancing the understanding and the knowledge of baseball, makes us the perfect choice to coordinate and host such an important baseball industry event

Vince Gennaro, SABR President • Marc Appleman, SABR Executive Director

#### **About SABR**

With more than 6,500 members, the Society for American Baseball Research is as diverse as a crowd at a baseball game. Some are active writers and historians. Some are into baseball stats. Most of all, SABR members love talking baseball with like-minded friends. What unites them is an interest in the game and a passion in learning more about it.

#### Membership benefits

- ◆ Two Baseball Research Journals and The National Pastime
- Regional chapter meetings, which include guest speakers, presentations and trips to ballgames
- Online access to research resources
- ◆ Discount on convention registration
- Opportunity to be part of a passionate international community of baseball fans



How to join

Visit SABR.org/join and choose from adult, under-30 or senior memberships

## THURSDAY, MARCH 7 ASU Cronkite School

Thursday's programming will be held at the Walter Cronkite School of Journalism and Mass Communication at Arizona State University, 555 N. Central Ave., Phoenix, AZ 85004.

## \* 8:30 a.m.-1:00 p.m.: Diamond Dollars Case Competition, presented by YarcData (Cronk 314, 3rd floor, and Executive Board Room 444, 4th floor)

First-round presentations of the Diamond Dollars Case Competition.

#### • 9:00 a.m.-7:00 p.m.: Registration open at Sheraton Phoenix Downtown

You can pick up your SABR Analytics Conference registration packet in the Valley Overlook (4th floor) of the Sheraton Phoenix Downtown. Programming will be a few blocks away at the ASU Cronkite School.

## \* 2:00-2:15 p.m.: Opening Remarks: Vince Gennaro/Marc Appleman (Studio A, Room 640)

SABR President Vince Gennaro and Executive Director Marc Appleman welcome attendees to the 2013 SABR Analytics Conference.

#### \* 2:15-3:00 p.m.: Featured Speaker: Brian Kenny

(Studio A, Room 640)

Brian Kenny, Host, MLB Network.

## \* 3:00-3:15 p.m.: SABR Analytics Research Award presentation: Historical Analysis/Commentary (Studio A, Room 640)

The winner of a 2013 SABR Analytics Research Award will be announced and presented.

- \* 3:15-4:00 p.m.: RP1—Graham Goldbeck, "Batted Ball Success by Depth in the Zone" (Studio A, Room 640)
- \* 3:15-4:00 p.m.: RP2—Alan Nathan, "Using F/X and TrackMan for Novel Baseball Analysis" (First Amendment Forum, 2nd floor)

## • 4:30-5:15 p.m.: Joe Posnanski, "The Romance Of WAR (and FIP and DIPS and Runs Saved)" (Studio A, Room 640)

Joe Posnanski, National Columnist, NBC Sports.

#### **\*** 5:30-6:15 p.m.: Player Panel

(Studio A, Room 640)

Brandon McCarthy, Arizona Diamondbacks; George Kontos, San Francisco Giants; Javier Lopez, San Francisco Giants. Moderator: Steve Berthiaume, Fox Sports Arizona.

• 6:30-7:30 p.m.: Bloomberg Sports—Next Generation of Team Analytics (Studio A, Room 640)

Bill Squadron, Bloomberg Sports; Jerry Dipoto, Los Angeles Angels of Anaheim.

## • 7:30-10:00 p.m.: Welcome/Networking Reception with Baseball Industry Network (Valley Overlook at Sheraton Phoenix Downtown)

The welcome reception will be an opportunity for conference attendees to meet some of our panelists, speakers, writers and others working throughout the baseball industry. Cash bar.

Note: The Welcome/Networking Reception will be held at the Sheraton Phoenix Downtown.

## FRIDAY, MARCH 8 Sheraton Phoenix Downtown

Friday's programming will be held at the Sheraton Phoenix Downtown, 340 North 3rd Street, Phoenix, AZ 85004.

- \* 8:00 a.m.-5:00 p.m.: Registration open at Sheraton Phoenix Downtown
- \* 8:30-9:45 a.m.: General Managers Panel (Valley of the Sun, C Room)

Jon Daniels, Texas Rangers; Rick Hahn, Chicago White Sox; Jed Hoyer, Chicago Cubs. Moderator: Brian Kenny, MLB Network.

◆ 10:00-10:45 a.m.: One on One: Stan Kasten (Valley of the Sun, C Room)

Stan Kasten, President and CEO, Los Angeles Dodgers. Interviewed by Vince Gennaro, SABR President.

- ◆ 11:00-11:30 a.m.: Special Announcement (Valley of the Sun, C Room)
- 11:45 a.m.-12:30 p.m.: RP3—Geoff Miller, "Making Intangibles Tangible" (Deer Valley Room)
- 11:45 a.m.-12:30 p.m.: RP4—Kevin Tenenbaum and Dave Allen, "Nash Equilibrium Solution for Fastball Locations in Two-Strike Counts" (Maryvale Room)
- ◆ 12:30-1:30 p.m.: Lunch (Valley Overlook; weather permitting)

Analytics Conference registration includes lunch.

#### **Product exhibition**

Sproing and reACT will be exhibiting their products on Friday and Saturday at the Sheraton Phoenix Downtown. Check the pocket schedule for more details.

**↑** 1:45-2:30 p.m.: Featured speaker: Bill James

(Valley of the Sun, C Room)

Bill James, Senior Advisor on Baseball Operations, Boston Red Sox.

\* 2:30-2:45 p.m.: SABR Analytics Research Award presentation: Contemporary Commentary (Valley of the Sun, C Room)

The winner of a 2013 SABR Analytics Research Award will be announced and presented.

- \* 3:00-3:45 p.m.: RP5—Ben Jedlovec, "The Anatomy of a Batted Ball" (Deer Valley Room)
- \* 3:00-3:45 p.m.: RP6—Matt Swartz, "Bayes at the Plate: Game Theory and Pitch Selection" (Maryvale Room)
- ◆ 4:00-5:00 p.m.: Clubhouse Confidential Panel (Valley of the Sun, C Room)

Brian Kenny, MLB Network; Rob Neyer, Baseball Nation; Dave Cameron, FanGraphs; Vince Gennaro, SABR.

#### SATURDAY, MARCH 9 Sheraton Phoenix Downtown

Saturday's programming will be held at the Sheraton Phoenix Downtown, 340 N. 3rd St., Phoenix, AZ 85004.

- \* 8:00 a.m.-5:00 p.m.: Registration open at Sheraton Phoenix Downtown
- ◆ 8:00-8:30 a.m.: Baseball-Reference.com Q&A

(Paradise Valley Room)

Baseball-Reference.com founder Sean Forman will be on hand to answer questions and provide tips on getting the most out of his website and its research tools.

\* 8:30-9:45 a.m.: Analytics Super Panel

(Encanto Room)

Brian Kenny, MLB Network; Bill James, Boston Red Sox; Joe Posnanski, NBC Sports.

• 10:00-10:45 a.m.: Business of Baseball Analytics: Marketing-Mixed Optimization: Agent-Based Modeling Approach (Encanto Room)

Damon Ragusa, ThinkVine; Alex King, Cleveland Indians

• 11:00–11:45 a.m.: Business of Baseball Analytics: Using Research and Analytics to Impact Revenue (Deer Valley Room)

Bill Nielsen, Scarborough Sports Marketing.

- 11:00-11:45 a.m.: RP7—Vince Gennaro, "The Big Data Approach to Baseball Analytics" (Encanto Room)
- \* 11:45 a.m.-12:00 p.m.: SABR Analytics Research Award presentation: Contemporary Analysis (Encanto Room)

The winner of a 2013 SABR Analytics Research Award will be announced and presented.

◆ 12:00-1:00 p.m.: Lunch

(Valley Overlook; weather permitting)

Analytics Conference registration includes lunch.

**↑** 1:15-2:15 p.m.: Player Development Panel

(Encanto Room)

Tyrone Brooks, Pittsburgh Pirates; Derek Falvey, Cleveland Indians; Yeshayah Goldfarb, San Francisco Giants. Moderator: Rob Neyer, Baseball Nation.

• 1:15–2:00 p.m.: Business of Baseball Analytics: Strategic Fan Segmentation in MLB (Deer Valley Room)

Eric Paquette, Copernicus.

• 2:15–3:15 p.m.: Business of Baseball Analytics: Executive Revenue Roundtable (Deer Valley Room)

Dan Derian, Major League Baseball; Barry Kahn, QCue; Andrew Miller, Cleveland Indians; Zaheer Benjamin, Phoenix Suns. Moderator: Dan Migala, Property Consulting Group.

- 2:30-3:15 p.m.: RP8—Andy Andres and Rory Kirchner, "Merging weather data to PITCHf/x and HITf/x" (Encanto Room)
- 3:30-4:30 p.m.: Player Agent Panel

(Encanto Room)

Gregg Clifton, Jackson Lewis, LLP; Casey Close, Excel Sports Management; Rex Gary, Turner-Gary Sports. Moderator: Dan Migala, Property Consulting Group.

• 4:30-5:30 p.m.: Diamond Dollars Case Competition, presented by YarcData (Encanto Room)

Final presentations of the Diamond Dollars Case Competition.

**◆** 5:30-5:45 p.m.: Conference wrap-up

(Encanto Room)

SABR President Vince Gennaro and Executive Director Marc Appleman.

## **Featured Speakers**

#### Bill James Senior Advisor on Baseball Operations, Boston Red Sox

Bill is Senior Advisor on Baseball Operations for the Boston Red Sox. He is the best known baseball analyst in the world and a prolific author of many books, including the *Bill James Baseball Abstracts*, the *Historical Baseball Abstract*, *Win Shares*, *Politics of Glory*, *The Bill James Gold Mine* and the annual *Bill James Handbook*. He is considered by many to be the father of sabermetrics — he even coined the phrase in 1980 — and has created many new innovative measures such as Runs Created and Win Shares to evaluate player performance. He is a founding member of the SABR Statistical Analysis Research Committee and was a recipient of the Henry Chadwick Award in 2010.



1:45 p.m., Friday, March 8 Valley of the Sun, C Room, Sheraton Phoenix Downtown

#### Joe Posnanski National Columnist, NBC Sports

Joe Posnanski was recently named National Columnist at NBC Sports. He was formerly a Senior Writer for Sports on Earth, a joint venture between The USA Today Sports Group and Major League Baseball Advanced Media, and a Senior Writer at *Sports Illustrated*. From 1996 to 2009, he was sports columnist for *The Kansas City Star*, where he was named best sports columnist in America twice by the Associated Press Sports Editors. He has been nominated for 21 APSE awards and has written two books on baseball, *The Machine: The Story of the 1975 Cincinnati Reds* and *The Soul of Baseball: A Road Trip Through Buck O'Neil's America*.



4:30 p.m., Thursday, March 7 Studio A, Room 640, ASU Cronkite School

#### Brian Kenny Host, MLB Network

Brian is the host of MLB Network's critically acclaimed "Clubhouse Confidential," where he incorporates sabermetrics into the day's baseball news. A 25-year national TV and radio veteran, Brian joined MLB Network from ESPN, where he was a "SportsCenter" anchor, host of the Brian Kenny Show on ESPN Radio and an Emmy Award-winning anchor for "Baseball Tonight."

2:15 p.m., Thursday, March 7 Studio A, Room 640, ASU Cronkite School



## **Featured Speakers**

#### Stan Kasten President and CEO, Los Angeles Dodgers

Stan became the Dodgers' new President/CEO, as well as a part-owner, when the team was sold to Guggenheim Baseball Management in May 2012. He served as President of the Washington Nationals from 2006 to 2010. He was an executive with the Atlanta Braves organization from 1987 to 2003, spearheading the team's dynastic run to 12 consecutive division titles from 1991 to 2003. He oversaw the construction of Turner Field and Philips Arena, and also served as president of the NBA's Atlanta Hawks and NHL's Atlanta Thrashers.



10:00 a.m., Friday, March 8 Valley of the Sun, C Room, Sheraton Phoenix Downtown

## **Speakers/Panelists**

Player Panel: How has analytics changed major league players' approach to the game, their preparation and their performance? 5:30 p.m., Thursday, March 7, Studio A, Room 640, ASU Cronkite School.

- Brandon McCarthy, Arizona Diamondbacks: Brandon is a starting pitcher for the Arizona Diamondbacks, signing a two-year free agent deal with the club in December 2012. He was the Oakland Athletics' Opening Day starter in 2012 and finished 8-6 with a 3.24 ERA in 18 starts. His season was cut short in September when he took a line drive to the head and was forced to undergo surgery to relieve cranial pressure. He recovered to join his A's teammates in the dugout during their magical stretch run to an AL West title. Brandon had a breakout season in 2011, when he set career highs in wins (9) and shattered an A's franchise record with a 4.92 strikeout-to-walk ratio.
- George Kontos, San Francisco Giants: As a rookie reliever, George was an integral part of the Giants' World Series championship team in 2012. He went 2-1 with a 2.47 ERA in 44 relief outings. He struck out 44 and walked 12 in 43.2 innings pitched, then stranded all six runners he inherited in eight postseason appearances. He was drafted by the Yankees in the fifth round of the 2006 amateur draft out of Northwestern University.
- Javier Lopez, San Francisco Giants: Javier was one of the Giants' best relievers in their 2010 and 2012 World Series runs. He was acquired at the trade deadline in July 2010 and has put up a stellar 2.42 ERA in 167 appearances for the Giants since. He made five scoreless appearances in the 2012 postseason he and his wife Renee also welcomed their second child, Christian, prior to Game 3 of the World Series.
- Moderator: Steve Berthiaume, Fox Sports Arizona: Steve was recently hired to be the Arizona Diamondbacks play-by-play broadcaster beginning with the 2013 season. He spent more than a decade working for ESPN, where he was a familiar face as a host on "SportsCenter" and "Baseball Tonight." He has also worked for SportsNet New York, CNNSI and WTIC in Hartford, Connecticut.

Bloomberg Sports—Next Generation of Team Analytics: Bill Squadron, head of Bloomberg Sports, will demonstrate the one-stop-shop system now being used by almost all Major League clubs for their front office operations. It will show the new Bloomberg Sports Pro 2.0 platform, just launched in January 2013. Bill will be joined by Jerry Dipoto, who will discuss how the Los Angeles Angels of Anaheim use technology and data analytics in their scouting and other areas, and how they work closely with Bloomberg Sports to maximize their capabilities and efficiency in these pursuits. 6:30 p.m., Thursday, March 7, Studio A, Room 640, ASU Cronkite School.

- **Bill Squadron, Bloomberg Sports:** Bill is head of Bloomberg Sports, which provides data, statistical analysis and visualizations for sports professionals and fans. From 1997 to 2003, he was co-founder, Chairman and CEO of Sportvision, pushing for television innovations such as the yellow first down marker in football, NASCAR Race f/x and the "K Zone" baseball tracking system.
- Jerry Dipoto, Los Angeles Angels of Anaheim: Jerry is entering his second season as Senior Vice President and General Manager of the Los Angeles Angels of Anaheim. He previously spent six seasons with the Arizona Diamondbacks, most recently as the Senior Vice President, Scouting & Player Development.

General Managers Panel: On how major league front offices are using analytics to develop a competitive edge and stay ahead of their competition. 8:30 a.m., Friday, March 8, Valley of the Sun, C Room, Sheraton Phoenix Downtown.

- Jon Daniels, Texas Rangers: Jon has served as General Manager of the Rangers since October 2005, leading the club to the World Series in 2010 and 2011 after a dramatic overhaul of the farm system and developing an organizational philosophy based on strong scouting and player development. He was selected as Baseball America's 2010 Major League Executive of the Year. He joined the Rangers in 2002 as a baseball operations assistant and was promoted to Director of Baseball Operations in October 2003 and Assistant General Manager in July 2004. He was the youngest GM in baseball history at the time of his appointment in 2005.
- Rick Hahn, Chicago White Sox: Rick is Senior Vice President/General Manager of the Chicago White Sox. Entering his 13th season with the White Sox, Rick was named as the team's general manager in October 2012. Previously, he served as Vice President/Assistant General Manager under Ken Williams, helping to determine the club's roster composition, player acquisitions, talent evaluations and contract negotiations. Prior to joining the White Sox, he spent two years as an associate at Steinberg, Moorad & Dunn, a sports agency based in Newport Beach, California.
- **Jed Hoyer, Chicago Cubs:** Jed joined the Cubs as Executive VP/General Manager in November 2011 after serving two seasons in the same role with the San Diego Padres. He worked in the Boston Red Sox front office with Theo Epstein from 2002-09, helping guide the club to two world championships in 2004 and 2007.
- Moderator: Brian Kenny, MLB Network: Brian is the host of MLB Network's critically acclaimed "Clubhouse Confidential," where he incorporates sabermetrics into the day's baseball news. A 25-year national TV and radio veteran, Brian joined MLB Network from ESPN, where he was a "SportsCenter" anchor, host of the Brian Kenny Show on ESPN Radio and an Emmy Award-winning anchor for "Baseball Tonight."

Clubhouse Confidential Panel: Our panelists appear regularly on MLB Network's signature analytics program, "Clubhouse Confidential" (airing at 5:30 p.m. and 7:30 p.m. daily.) The panelists will be discussing a wide range of analytics issues, and you will have the opportunity to ask them questions related to baseball analytics, value projection and other topics. 4:00 p.m., Friday, March 8, Valley of the Sun, C Room, Sheraton Phoenix Downtown.

- Dave Cameron, FanGraphs: Dave is Managing Editor and a Senior Writer at FanGraphs. He was the co-founder of the U.S.S. Mariner blog and previously worked at Baseball Prospectus.
- Vince Gennaro, SABR: Vince is the President of SABR and author of *Diamond Dollars: The Economics of Winning in Baseball*. He is a consultant to MLB teams, and he teaches in the graduate programs at Columbia University and Manhattanville College.
- **Rob Neyer, Baseball Nation:** Rob is the National Baseball Editor for SB Nation. He previously worked with Bill James, STATS, Inc. and ESPN.com. He has also written or co-written six baseball books, including *The Neyer/James Guide to Pitchers* (with Bill James).
- Moderator: Brian Kenny, MLB Network: Brian is the host of MLB Network's critically acclaimed "Clubhouse Confidential," where he incorporates sabermetrics into the day's baseball news. A 25-year national TV and radio veteran, Brian joined MLB Network from ESPN, where he was a "SportsCenter" anchor, host of the Brian Kenny Show on ESPN Radio and an Emmy Award-winning anchor for "Baseball Tonight."

Analytics Super Panel: 8:30 a.m., Saturday, March 9, Encanto Room, Sheraton Phoenix Downtown.

- Bill James, Boston Red Sox: Bill is Senior Advisor on Baseball Operations for the Boston Red Sox. He is the best known baseball analyst in the world and a prolific author of many books, including the Bill James Baseball Abstracts, the Historical Baseball Abstract, Win Shares, Politics of Glory, The Bill James Gold Mine and the annual Bill James Handbook. He is considered by many to be the father of sabermetrics he even coined the phrase in 1980 and has created many new innovative measures such as Runs Created and Win Shares to evaluate player performance. He is a founding member of the SABR Statistical Analysis Research Committee and was a recipient of the Henry Chadwick Award in 2010.
- Joe Posnanski, NBC Sports: Joe Posnanski was recently named National Columnist at NBC Sports. He was formerly a Senior Writer for Sports on Earth, a joint venture between The USA Today Sports Group and Major League Baseball Advanced Media, and a Senior Writer at Sports Illustrated. From 1996 to 2009, he was sports columnist for The Kansas City Star, where he was named best sports columnist in America twice by the Associated Press Sports Editors. He has been nominated for 21 APSE awards and has written two books on baseball, The Machine: The Story of the 1975 Cincinnati Reds and The Soul of Baseball: A Road Trip Through Buck O'Neil's America.
- Moderator, Brian Kenny, MLB Network: Brian is the host of MLB Network's critically acclaimed "Clubhouse Confidential," where he incorporates sabermetrics into the day's baseball news. A 25-year national TV and radio veteran, Brian joined MLB Network from ESPN, where he was a "SportsCenter" anchor, host of the Brian Kenny Show on ESPN Radio and an Emmy Award-winning anchor for "Baseball Tonight."

Business of Baseball Analytics: Agent-Based Modeling Approach to Marketing Optimization: This special breakout session is part of the Business of Baseball Analytics, which runs from 10:00 a.m. to 3:30 p.m. on Saturday, March 9 at the 2013 SABR Analytics Conference. ThinkVine's marketing mix optimization software provides marketers with the forward-looking information they need to achieve the maximum return across all their marketing investments. 10:00 a.m., Saturday, March 9, Encanto Room, Sheraton Phoenix Downtown.

- Damon Ragusa, ThinkVine: As Chairman and Chief Strategy Officer for ThinkVine, Damon shapes the company's strategy and product direction. An accomplished entrepreneur and marketing technologist, Damon has successfully transitioned ThinkVine from a custom solutions consultancy into a software-as-a-service enterprise in the marketing mix optimization space. In early 2009, under Damon's leadership, ThinkVine launched its marketing planning & simulation application leading to triple digit annual growth in software revenue. A popular speaker known for his domain expertise and thought leadership, Damon is frequently asked to present at such conferences as ad:tech, American Marketing Association, Advertising Research Foundation and the Institute for International Research.
- Alex King, Cleveland Indians: Alex was hired as the Indians' Vice President of Marketing and Brand Management in July 2011. He was formerly a brand manager at Procter & Gamble and a product manager at the Bradford Group. He graduated from the University of Chicago's Booth School of Business and and holds a bachelor's degree in economics from the University of Dayton.

Player Development Panel: On how information and data has altered the development path for players and the methods teams are using to evaluate and advance players through their system and measure their readiness for advancement. 1:15 p.m., Saturday, March 9, Encanto Room, Sheraton Phoenix Downtown.

- Tyrone Brooks, Pittsburgh Pirates: Tyrone is Director of Player Personnel for the Pittsburgh Pirates. Before being named to his current position, he was the club's Director of Baseball Operation for two years. Previously, he was a Professional Scout for the Cleveland Indians in the Pacific Coast, Texas and California leagues. He worked with the Atlanta Braves for 11 years while serving as their Director of Baseball Admissions. Brooks is also the founder of the Baseball Industry Network, which covers the full gamut of people working in the industry of baseball.
- Derek Falvey, Cleveland Indians: Derek is entering his sixth season with the Indians and second as the Director of Baseball Operations after being named to the position in December 2011. In his role, Derek focuses primarily on player personnel and professional and amateur player acquisitions. He spent the 2011 season in the position of Assistant Director of Baseball Operations where he assisted Chris Antonetti, Mike Chernoff and the Baseball Operations staff in the day-to-day operations of the club along with all aspects of player procurement. In his first three years with the club, Derek assisted in both the Amateur and International Scouting Departments. Falvey's tenure with the Indians started in November 2007 when he began an internship in Baseball Operations.
- Yeshayah Goldfarb, San Francisco Giants: Yeshayah is entering his 13th season in the Giants baseball operations department, where he serves as Director of Minor League Operations/Quantitative Analysis. He helps run the minor league operations on a day-to-day basis, including spring training camp, roster formation, player evaluation, budget management and affiliate team liaison.

Additionally he provides statistical analysis on major league, minor league, and amateur players for purposes of roster construction, player acquisition and development. He is also responsible for seeking out and incorporating new technologies and data into baseball operations information systems. Goldfarb graduated Cum Laude and pitched for the University of California, San Diego.

• Moderator: Rob Neyer, Baseball Nation. Rob is the National Baseball Editor for SB Nation. He previously worked with Bill James, STATS, Inc. and ESPN.com. He has also written or cowritten six baseball books, including *The Neyer/James Guide to Pitchers* (with Bill James), winner of the Sporting News-SABR Baseball Research Award.

Player Agent Panel: On how the growth in data and information has impacted the role of the agent in baseball, implications of the new Collective Bargaining Agreement and how the landscape has changed for agents over the past 10 years. 3:30 p.m., Saturday, March 9, Encanto Room, Sheraton Phoenix Downtown.

- Gregg Clifton, Jackson Lewis, LLP: Gregg is Managing Partner of the Phoenix department of Jackson Lewis, LLP, and Co-Chair of the firm's Collegiate and Professional Sports Industry Group. He has worked with many Major League teams in their salary arbitration hearings and represented NCAA and NAIA collegiate clients regarding rules compliance, investigatory matters and in disciplinary hearings. Previously, he was the Chief Operating Officer and Vice President of Team Sports for Gaylord Sports Management. He also was the President of Athlete and Entertainment Division for Woolf Associates.
- Casey Close, Excel Sports Management: Casey heads the baseball division at Excel Sports Management, where he represents many athletes including Derek Jeter, Mark Teixeira, Alex Gordon and Michael Cuddyer. He previously worked for Creative Artists Agency and IMG. He was an All-American outfielder and pitcher for the University of Michigan, and holds several all-time career records at the school. He was drafted by the New York Yankees in 1986 and played five seasons for the Yankees organization.
- Rex Gary, Turner-Gary Sports: Rex is a lawyer and a co-owner of Turner-Gary Sports. His company has represented numerous baseball players over the years, including Ryne Sandberg, Joe Carter, Brad Lidge, Shaun Marcum and Will Venable. Rex has been preparing and presenting salary arbitration cases in professional sports, both baseball and hockey, for more than twenty years. In addition, he represents NCAA coaches in contract negotiations and amateur athletes in NCAA eligibility matters.
- Moderator: Dan Migala, Property Consulting Group. Dan is the founding partner of Property Consulting Group, a Chicago-based team marketing advisory firm and publisher of The Migala Report, a sports business monthly periodical. He has helped design some of baseball's most innovative revenue-generating concepts. He is a co-owner with Mike Veeck of the Class A Fort Myers Miracle and author of three sports marketing texts.

Sportvision is pleased to announce that it is collaborating with SABR to integrate its fifth PITCHf/x Summit into the 2013 SABR Analytics Conference. In its inaugural year, the SABR Analytics Conference attracted an international audience of almost 300 attendees, including MLB front office personnel from 19 teams. Integrating these two popular gatherings of influential baseball analysts and thought leaders will further enhance this event as the premier baseball analytics conference. Sportvision will manage a series of presentations specifically related to f/x data much like the PITCHf/x Summit. The presentations will be integrated with other SABR Analytics talks throughout the course of the event. These presentations are noted with italics below.

Here is the schedule of research presentations for the 2013 SABR Analytics Conference:

## THURSDAY, MARCH 7 ASU Cronkite School

## 3:15-4:00 p.m.: RP1—Graham Goldbeck, "Batted Ball Success by Depth in the Zone" (Studio A, Room 640)

\* Sportvision PITCHf/x Summit presentation

While much work has been done on the relationship between batted ball success and ball location in the horizontal and vertical directions, very little has been done regarding contact point with regards to depth in the zone. Using the contact points from HITf/x, we can begin to understand the relationship between how deep into the zone the ball travels before being struck and other HITf/x components (batted ball speed, horizontal/vertical launch angles) as well as more traditional statistics (home run percentage, batting average, etc.)

**Graham Goldbeck** is a Baseball Analytics Specialist at Sportvision, the company behind PITCHf/x, HITf/x, COMMANDf/x, and FIELDf/x. In the past, Graham was a writer for the website Beyond the Box Score and also worked as a baseball operations intern for the Oakland Athletics and Tampa Bay Rays.

## 3:15-4:00 p.m.: RP2—Alan Nathan, "Using F/X and TrackMan for Novel Baseball Analysis" (First Amendment Forum, 2nd floor)

Technological advances for tracking the baseball have opened up new opportunities for baseball analysis that have heretofore not been possible. These advances include both the camera-based F/X systems supplied by Sportvision (PITCHf/x, HITf/x, COMMANDf/x, and FIELDf/x) and the Doppler radar-based system known as TrackMan. The talk will begin with a detailed analysis and case study of a most unusual play that occurred during the 2012 season, which showcases the potential of both systems for innovative analysis. It will be followed by a more general discussion of these systems, comparing and contrasting their capabilities and limitations for both pitched and batted baseballs. For pitched baseballs, the concepts of movement and spin will be presented, along with a discussion of how these quantities are measured in the two systems. For batted baseballs, it will be shown how limited information about the batted ball can be used to reconstruct the full trajectory. A variety of analyses using this technique will then be presented, including some of the following: the effect of temperature and elevation on fly ball distance; the effect of a humidor on home run production; the optimum launch angles for batted balls; and the effect of spin on

a batted ball trajectory. The presentation will conclude with an outlook for future studies.

**Alan Nathan** is Professor Emeritus of Physics at the University of Illinois and a Fellow of the American Physical Society. For the last decade he has added the physics of baseball to his research portfolio and has written numerous papers, primarily on the physics of the ball-bat collision and the aerodynamics of a baseball, for scientific journals. In addition, he has lectured on the subject to both scientific and popular audiences and maintains a frequently visited "physics of baseball" website. He and his much younger colleagues are part of a baseball-analysis consortium known as Complete Game Consulting. He is the Chair Emeritus of SABR's Science & Baseball Committee.

## FRIDAY, MARCH 8 Sheraton Phoenix Downtown

## 11:45 a.m.-12:30 p.m.: RP3—Geoff Miller, "Making Intangibles Tangible" (Deer Valley Room)

Ask coaches and staff from all 30 Major League Baseball teams to define the role of psychology in their organizations and you might get 30 different answers. The lack of agreement on terms, identification, and development of intangibles contributes to the difficulty in measuring the impact of mental skills training. Making Intangibles Tangible is meant to provide starting points for finding new ways to combine intangible factors with analytics methods.

**Geoff Miller**, Mental Skills Coach for the Atlanta Braves and author of *Intangibles: Big-League Stories* and *Strategies for Winning the Mental Game – in Baseball and in Life*, discusses the organizational role he plays at the big league level, in scouting, and player development, as well as qualitative and quantitative practices for measuring psychological variables. This presentation includes case studies that demonstrate root causes of behavior as well as the importance of understanding the people who produce performance when considering future measures.

## 11:45 a.m.-12:30 p.m.: RP4—Kevin Tenenbaum and Dave Allen, "Nash Equilibrium Solution for Fastball Locations in Two-Strike Counts" (Maryvale Room)

\* Sportvision PITCHf/x Summit presentation

Despite many useful applications, the Sabersphere has placed little focus on finding Nash Equilibria (NE) that define optimal strategies for pitchers and hitters. We present the Nash Equilibrium solution for the pitcher's location of fastballs in two-strike counts given the hitter's best response. This model is set apart from previous NE applications because we model the locations continuously, rather than just in the zone or out. Therefore, we are able to solve for both the pitcher and hitter's payoffs for all possible locations. This model can be used as a tool to ensure that hitters and pitchers are behaving optimally in the two-strike setting.

**Kevin Tenenbaum** is in the Class of 2015 at Middlebury College. **Dave Allen** is a contributing writer at Baseball Analysts and The Hardball Times.

## FRIDAY, MARCH 8 Sheraton Phoenix Downtown

## 3:00-3:45 p.m.: RP5—Ben Jedlovec, "The Anatomy of a Batted Ball" (Deer Valley Room)

Baseball games are won and lost on the outcome of batted balls. Using the comprehensive new batted ball timer data set from Baseball Info Solutions, we can dissect the trajectory of every batted ball in recent seasons. Building batted ball profiles for individual hitters can help us better understand, evaluate, and predict hitter performance.

**Ben Jedlovec** is Vice President of Product Development & Sales at Baseball Info Solutions, where he guides the company's Research and Sales efforts. With BIS President & Owner John Dewan, he co-authored *The Fielding Bible—Volume III* in Spring 2012.

## 3:00-3:45 p.m.: RP6—Matt Swartz, "Bayes at the Plate: Game Theory and Pitch Selection" (Maryvale Room)

Game Theory—the study of strategic decision-making—lends itself very well to baseball at all levels of decision-making, from the GM down to the individual player. This study views pitch selection as a "game" between batter and pitcher, and employs a game theoretical model to determine the best approach for each of the two actors. The result of this research—the equilibrium solution—suggests that players are likely not picking optimal strategies in terms of pitch selection, and that they could improve their winning percentages by following a more strategic framework. By examining the players' available information and potential payoffs from their individual choices within various hypotheticals, he was able to uncover some general guidelines. These results hold up to the scrutiny of adjusted assumptions whereby batters get a noisy "signal"—a split-second eyeballing of the pitch coming towards them—and use Bayesian updating techniques to determine their approach at the plate.

**Matt Swartz** is a contributing writer at FanGraphs.com, The Hardball Times and MLB Trade Rumors. He has a Ph.D. in economics from the University of Pennsylvania.

#### SATURDAY, MARCH 9 Sheraton Phoenix Downtown

## 11:00-11:45 a.m.: RP7—Vince Gennaro, "The Big Data Approach to Baseball Analytics" (Encanto Room)

The next generation of baseball analytics has arrived. Three factors have come together to create an inflection point in baseball's analytic templates and our use of decision tools—an explosion of baseball data, new processing technology, and abundant, inexpensive data storage capacity. Thanks to the efforts of MLBAM, Sportvision, Baseball Info Solutions and other data providers, baseball is the envy of sports analysts, with over 15 million annual data points to describe game action. In fact, 95% of the baseball data available to researchers today, emerged after the publication of *Moneyball*. New processing technologies allow us to go beyond traditional data analyses by applying graph analytics or analyzing unstructured text data using sophisticated linguistic algorithms. This presentation will show examples of ways emerging technology can advance our understanding of player performance, aid in player development and provide insights into player valuation.

Vince Gennaro is the president of SABR, the author of *Diamond Dollars: The Economics of Winning in Baseball*, a consultant to MLB teams and a regular contributor to MLB Network's "Clubhouse Confidential." This follows a successful business career, which includes diverse roles — CEO of an early stage public company, president of a billion-dollar division of PepsiCo, and ownership of a women's probasketball franchise. He is on the Advisory Board of The Perfect Game Foundation, which is dedicated to helping young people build a career in sports.

## 2:30-3:15 p.m.: RP8—Andy Andres and Rory Kirchner, "Merging weather data to PITCHf/x and HITf/x" (Encanto Room)

\* Sportvision PITCHf/x Summit presentation

This work analyzes the relationship between pitch effectiveness and weather factors, specifically temperature and humidity, using PITCHf/x data. Past analyses show the velocity increases with temperature are approximately .06 MPH/10 degrees F for the changeup and curveball, and from .12 to .25 MPH/10 degrees F for the various fastballs and sliders. Using historical hourly records from the weather stations located nearest MLB ballparks, we interpolated the weather conditions for every pitch in the PITCHf/x database from 2007 to 2012. The weather conditions were also matched to every batted ball in the HITf/x database for 2012, and weather impact on batted ball distance will be reported.

**Andy Andres** teaches a course on sabermetrics at Tufts University, the head coach for the MIT Science of Baseball Program and a datacaster for Boston Red Sox games at Fenway Park. He is also a senior lecturer of natural science at Boston University's College of General Studies and an expert in exercise physiology. **Rory Kirchner** is a Visiting Scientist at Bioinformatics Core at Harvard School for Public Health.

## **Diamond Dollars Case Competition**

#### presented by YarcData

The SABR Analytics Conference is pleased to host the unique **Diamond Dollars Case Competition**, **presented by YarcData**. Undergraduate and graduate students from colleges and universities across the country, will compete against each other by preparing an analysis and presentation of a baseball operations decision — the type of decision a team's GM and his staff is faced with over the course of a season. The case was developed by Vince Gennaro, author of *Diamond Dollars: The Economics of Winning in Baseball*, and consultant to MLB teams. The Case Competition is the first national competition to be based solely on baseball operations issues.

Four- to five-person student teams will be asked to evaluate a baseball operations case problem. Once the student team has prepared its case, they will have the opportunity to present their analysis and recommendations to a panel of judges, which will include MLB front office executives. They will have a dialog, receive feedback and ultimately be evaluated, by the panel of judges, based on the quality of their insights and analysis.

The competition will be divided into graduate/professional and undergraduate divisions. Awards will be presented to each of the bracket winners. The competition will take place on Thursday, March 7 at the ASU Cronkite School and the Final Case presentation will be on Saturday, March 9 at the Sheraton Phoenix Downtown.

## Thursday, March 7 ASU Cronkite School

Graduate and Professional School Competition (Cronk 314, 3rd floor)

- **Opening remarks**, 8:30-8:45 a.m.
- George Washington University Graduate Business School (Washington, D.C.), 8:45-9:15 a.m.
- Elon University-Love School of Business (Elon, NC), 9:20-9:50 a.m.
- Indiana University-McKinney School of Law (Bloomington, IN), 9:55-10:25 a.m.
- ◆ University of Chicago-Booth (Chicago, IL), 10:45-11:15 a.m.
- ◆ Columbia University-Graduate Sports

  Management (New York, NY), 11:20-11:50 a.m.
- Pepperdine University-School of Law (Malibu, CA), 11:55 a.m.-12:25 p.m.

#### **Undergraduate School Competition (Executive Board Room 444, 4th floor)**

- **◆ Opening remarks**, 8:45-9:00 a.m.
- ◆ Cornell University (Ithaca, NY), 9:00-9:30 a.m.
- Tufts University, Team 1 (Medford, MA), 9:35-10:05 a.m.
- New York University-Tisch School (New York, NY), 10:10-10:40 a.m.
- St. John Fisher College (Rochester, NY), 11:00-11:30 a.m.
- Tufts University, Team 2 (Medford, MA), 11:35 a.m.-12:05 p.m.

Note: Registration will begin at 7:30 a.m. Thursday.

## **Business of Baseball Analytics**

Baseball Executives from Sales, Marketing, Human Resources, Finance, Stadium Operations and other functions will come together to discuss innovative ways to analyze the business of baseball and drive revenue

The Business of Baseball Analytics session is scheduled for 10 a.m. to 3:30 p.m., Saturday, March 9, 2013, at the Sheraton Phoenix Downtown in Phoenix, Arizona.

As a separate track within the SABR Analytics Conference, it represents a great opportunity to share thinking and discuss innovative ways to grow revenues and develop deeper insights into the key revenue drivers. Thought leaders who have developed successful analytical templates used extensively in consumer products companies, financial services and other industries, have translated and adapted their products and services to add value to the business of baseball. They will share and discuss their work, including baseball case studies, all of which lead to innovative ways to drive revenues.

Here is the agenda for the Business of Baseball Analytics session:

#### • 10:00–10:45 a.m.: Agent-based Modeling Approach to Marketing Optimization (Encanto Room)

Damon Ragusa, Chairman and Chief Strategy Officer, ThinkVine; Alex King, Vice President, Marketing and Brand Management, Cleveland Indians

#### • 11:00–11:45 a.m.: Using Research and Analytics to Impact Revenue (Deer Valley Room)

Bill Nielsen, Vice President, Sales, Scarborough Sports Marketing

#### • 12:00-1:00 p.m.: Lunch

(Valley Overlook; weather permitting)

SABR Analytics Conference registration includes lunch at the Sheraton Downtown Phoenix.

#### • 1:15–2:00 p.m.: Strategic Fan Segmentation in MLB

(Deer Valley Room)

Eric Paquette, Senior Vice President, Copernicus

#### • 2:15–3:15 p.m.: Executive Revenue Roundtable

(Deer Valley Room)

Dan Derian, Vice President, Research, Major League Baseball; Barry Kahn, Founder & CEO, QCue; Andrew Miller, Senior Vice President, Strategy and Analytics, Cleveland Indians; Zaheer Benjamin, Director of Financial Planning, Phoenix Suns. Moderator: Dan Migala, Founder, Property Consulting Group.

sabr.org/analytics

## **SABR Analytics Research Awards**

The **SABR Analytics Research Awards** recognizes baseball researchers who have completed the best work of original analysis or commentary during the preceding calendar year. Here are the 2013 finalists:

#### Historical Analysis/Commentary Winner TBA: 3:00 p.m., Thursday, March 7

- Lisa Doris Alexander, "But They Don't Want to Play with the White Players, Right?" *Black Ball: A Negro Leagues Journal* (McFarland & Co.), Fall 2012.
- Bob Hoie, "1919 Baseball Salaries and the Mythically Underpaid Chicago White Sox." *Base Ball: A Journal of the Early Game* (McFarland & Co.), Spring 2012.
- Dave Studeman, "The Most Critical At-Bat of All Time." The Hardball Times, March 28, 2012.
- Bryan Soderholm-Difatte, "Durocher the Spymaster: How much did the Giants prosper from cheating in 1951?" *Baseball Research Journal*, SABR, Fall 2012.
- Shane Tourtellotte. "And That Ain't All, He Stole Home!" The Hardball Times, March 2, 2012.

#### Contemporary Baseball Commentary Winner TBA: 2:30 p.m., Friday, March 8

- Dave Cameron, "Why I'm Not a Fan of Losing on Purpose." FanGraphs.com, November 19, 2012.
- Russell Carleton, "Hire Joe Morgan." BaseballProspectus.com, July 9, 2012.
- Brian Kenny, "The Triple Crown is Nonsense." MLB.com, September 26, 2012.
- Jayson Stark, "Baseball's Biggest Stars Are Hurting." ESPN.com, June 2, 2012.
- Lewie Pollis, "Did Hall of Fame's Founders Want Voters to Judge With Their Eyes?" Beyond the Box Score, January 25, 2012.

#### Contemporary Baseball Analysis Winner TBA: 11:45 a.m., Saturday, March 9

- Glenn DuPaul, "Controlling the strike zone and batting average." The Hardball Times, November 14, 2012.
- Max Marchi, "The Art of Handling a Pitching Staff." BaseballProspectus.com, February 24, 2012.
- Bill Petti and Jeff Zimmerman, "Pitcher Aging Curves: An Introduction." FanGraphs.com, April 30, 2012.
- Wendy Thurm, "Revenue Sharing Flexibility Stretches with New TV Deals." FanGraphs.com, December 4, 2012.
- Colin Wyers, "Are Relief Pitchers Being Used Properly?" Excerpt from *Extra Innings: More Baseball Between the Numbers*. BaseballProspectus.com, March 23, 2012.

Voting for the winners was conducted online at SABR.org, BaseballProspectus.com, FanGraphs.com and HardballTimes.com, with results weighted equally at 25%. Links to read the finalists can be found at SABR.org/analytics.

#### **Venues**



The Walter Cronkite School of Journalism and Mass Communication at Arizona State University (555 N. Central Ave., Phoenix, AZ 85004) will host the first round of the Diamond Dollars Case Competition, presented by YarcData, along with featured speakers, panels and presentations on **Thursday, March 7, 2013**.

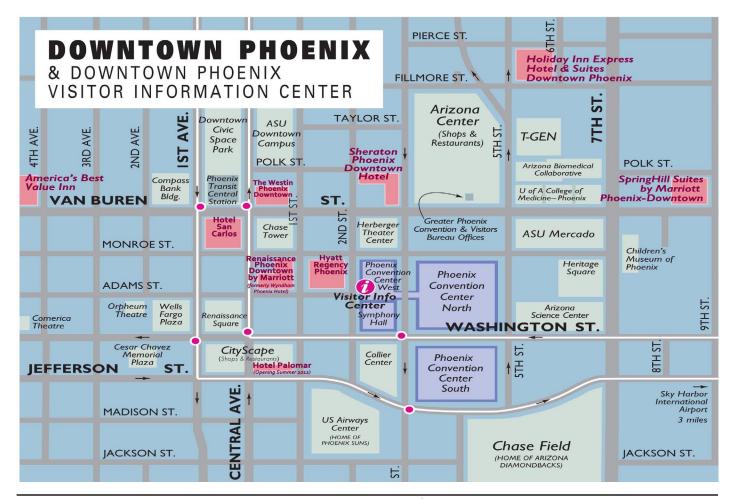
"We're thrilled to be hosting the SABR conference, a truly amazing gathering of some of the best researchers in baseball," Cronkite Dean Christopher Callahan said.

"It will be a terrific opportunity for our students

and our growing sports journalism curriculum."

The Walter Cronkite School of Journalism and Mass Communication at Arizona State University prepares the next generation of journalists in both the time-honored fundamentals embraced by the longtime CBS News anchor and the multimedia skills necessary to thrive as journalists in the digital age.

Housed in a \$71 million state-of-the-art media complex in downtown Phoenix, the school is consistently recognized as one of the leading journalism schools in the country.



#### **Venues**

### Sheraton Phoenix Downtown 340 North 3rd Street Phoenix, AZ 85004 (602) 262-2500



Amenities and services include:

- Club Lounge for all Sheraton guests
- Outdoor Heated Lap Pool with Sundeck
- Sheraton Fitness Facility
- 24-hour Valet Parking Service
- 24-hour business center, Link@Sheraton
- Outdoor Rooftop Herb Garden

- District American Kitchen & Wine Bar
- Complimentary Wireless High-Speed Internet access in the lobby
- ◆ 24-hour room service
- Car Rental Services nearby
- Golf Courses and Hiking Trails nearby

The Sheraton Phoenix Downtown will host the Welcome Reception on Thursday, March 7 and all Analytics Conference programming on Friday, March 8 and Saturday, March 9.



#### Key

Room 1: Valley of the Sun

Room 2: Arcadia

Room 3: Ahwatukee

Room 4: Laveen

Room 5: South Mountain

Room 6: Encanto

Room 7: Maryvale

Room 8: Estrella

Room 9: Camelback

Room 10: Alhambra

Room 11: Deer Valley

Room 12: Paradise Valley

Room 13: North Mountain

## **Presented by**



## Bloomberg SPORTS

#### **Partners**





### **Sponsors**





















#### **Teams**











## **Supporters**











## Bloomberg SPORTS

## Bloomberg Sports congratulates



## on the second annual SABR Analytics Conference

Bloomberg Sports is proud to support SABR in this ground-breaking initiative to advance the growth of analytics and technology in baseball. Bloomberg Sports has fast become one of the leading global providers of analytics in the sports industry. Bloomberg Sports is proud that its tools are now used by almost all Major League Clubs and major media companies.

For more information, visit www.bsports.com