



The Engineers' Club of Philadelphia

Cordially Invites You to Our

ANNUAL HOLIDAY LUNCHEON

**December 10, 2009
11:30 a.m. to 2:00 p.m.**

Howe Room, 33rd Floor, Loews Hotel,
1200 Market Street
Philadelphia, Pennsylvania 19107

History and Aerodynamics of the Curveball Presentation by LeRoy Alaways, PhD

Have you ever wondered how or why a baseball curves? Can a fastball actually rise? Does a four-seam pitch curve more than a two-seam? This presentation looks into the history and aerodynamics of the curveball from Isaac Newton by way of Igor Sikorsky to present day research. The Life and Look magazine debates of the 1940's and other trivia and rhubarb will be presented in addition to a little mechanical sports engineering. Oh, the answers to the above three questions and more will also be given in this entertaining presentation so bring a pad and take some notes, there might be a quiz afterwards.

*\$45.00 Club Members with reservations by December 4,
\$55.00 Non-Club members and members after December 4*

R.S.V.P. by December 4
Register [online](#),
email reservations@engrclub.org, or
call (215) 985-5701

