



**The Department of Chemistry and Biochemistry  
and the Toledo Section of the American Chemical Society  
presents**

**2015 FRONTIERS IN CHEMISTRY LECTURE**

**Dr. Bill Carroll**

**Director-at-Large, American Chemical Society  
Vice President of Industry Issues, Occidental Chemical  
Corporation**



***“Statistics and the Shirelles: How Physical  
Sciences Thinking Informs Popular  
Music Analytics”***

**Wednesday, March 4, 2015**

**7 pm**

**Field House (FH) 2100**

**Light refreshments provided by the Toledo Section of the American Chemical Society**

## **Abstract**

Human beings love lists, especially lists of the “Best of All Time.” But very seldom can direct comparison be made between things that had their heydays in different times—whether football teams, home run hitters, boxers or even records. So how might you get to a list of the “Best” records of all time? Is that only a subjective determination—“It’s what I like”—or are there objective measures that could be used?

This talk starts that analysis by comparing the history on the Billboard charts of records that were popular between 1958 and 1980, including the methodology for creating the charts and how it varied with time. Then various schemes for determining the strongest charting songs are compared.

In the end we’ll learn how various data handling and thinking techniques used in the physical sciences help with the analysis of music charts, and how a number of different approaches can be brought to consensus by these techniques.