Abstract: Recent studies have shown that the conventional vocabulary for statistical testing is too complicated for scientific communication. Even most statistics teachers and researchers who use statistics cannot correctly answer questions about the meaning of p-values. In this talk, I argue that we can communicate statistical results better using the language of betting. This approach gives us new and simpler “frequentist” ways to think about likelihood ratios, significance levels, and p-values. More complex statistical problems are best understood in terms of fully defined betting games, as explained in my forthcoming book with Vladimir Vovk, “Game-Theoretic Foundations for Probability and Finance” (Wiley, May 2019).

Bio: Glenn Shafer, best known for his work on the Dempster-Shafer theory, is University Professor at Rutgers, a former dean of the Rutgers Business School, and a member of the graduate faculty of the Rutgers Statistics Department. He previously gave seminars in this department in 1974, 1994, and 2002.