SIAM Meeting on 10/8/20 - Talk by Professor Glenn Shafer

- Prof. Agnieszka Miedlar welcomed introduced the speaker, Glenn Shafer of Rutgers University.

- Prof. Shafer introduced himself and his presentation entitled "Testing by Betting and the Randomness of Risk"

- Prof. Shafer called for a return to the betting foundations of probability in order to gain clarity and generality.

- Prof. Shafer argued that probabilistic predictions and statistical hypothesis should be tested by betting against them, and demonstrated the technique with Nate Silver's predictions for the 2020 Democratic Presidential candidate.

- Prof. Shafer also discussed the betting interpretation of hypothesis testing. In practice, testing at a given alpha would involve observing whether the returned capital on bets placed would exceed alpha.

- Prof. Shafer introduced multiple testing with betting and Gibb's inequality.

- Prof. Shafer finishes by discussing some history of betting, including historical gambling strategies like the d'Alembert, which had a positive expected return when applied at casinos.

Alex Gisi and Bozenna Pasik-Duncan, Agnieszka Miedlar
Executive Board of the SIAM KU Student Chapter