Praca zaliczeniowa numer 2
Ekonometria Finansowa, Szkoła Doktorska

2p Describe the characteristics of returns from the portfolio
To show: time series plot, moments, QQ plot, ACF, ACF of squares

2p Estimate the best univariate GARCH model
To show: parameter estimates, conditional standard deviation, model selection methods

2p Estimate the best copula for returns
To show: comparison of copulas (LL values), simulation from copula vs realizations (scatter plots)

6p Table with VaR/ES for $H = 1$ and $H = 10$ and p=1% and 5% using the following methods

- Historical simulation / t-Student / Normal / EWMA / GARCH [2p]
- GO-GARCH / DCC-GARCH [2p]
- Copula Eliptic / Archimeadean [2p]

6p Backtesting with Kupiec / Christoffersen / Frey-McNail (a table whether model passed the test)

- Historical simulation / t-Student [2p]
- GARCH / EWMA [2p]
- MGARCH / Copula [2p]

2p Describe everything in a transparent way within a presentation and give an interesting speech to other students (1 point for each)