Testing hypotheses on regression coefficients or their linear combinations

With one restriction (in H_0), $m = 1$: $F = t^2$. Slide 20

Simultaneous testing of multiple hypotheses on regression coefficients

A) Model reduction — Slide 21

Base model (M_B)
RSS_B, k_B

vs.

Restricted model (M_R)
RSS_R, k_R
("SHORTER MODEL")

B) Model expansion — Slide 22

Base model (M_B)
RSS_B, k_B
("SHORTER MODEL")

vs.

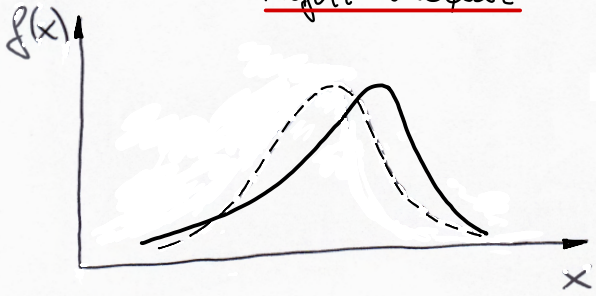
"New" (expanded) model (M_N)
RSS_N, k_N

Central moments of the distribution for the STANDARDIZED NORMAL DISTRIBUTION

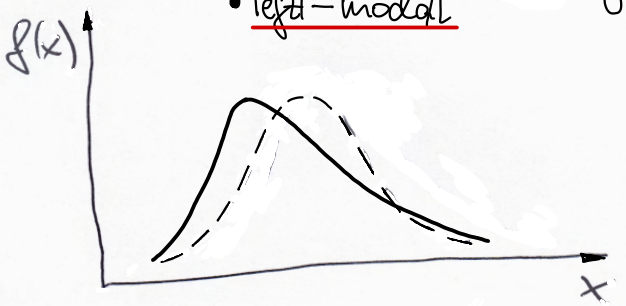
Slide 8

$a_1 = \mu = 0$
$a_2 = \sigma^2 = 1$
$a_3 = S = 0$ ~ skewness
$a_4 = K = 3$ ~ kurtosis
$\vdots$

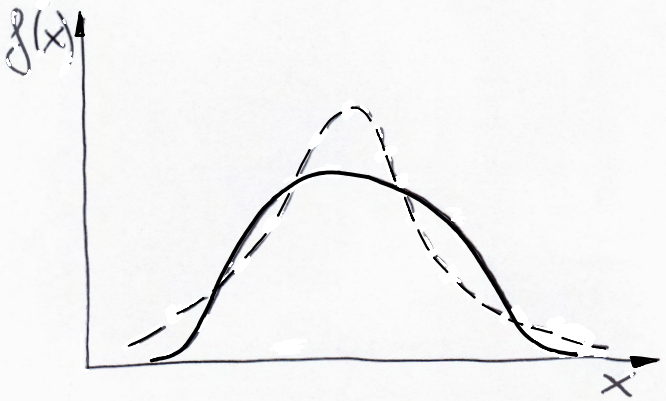
S<0:
- neg. asymmetry
- asymmetry to the left
- right-modal



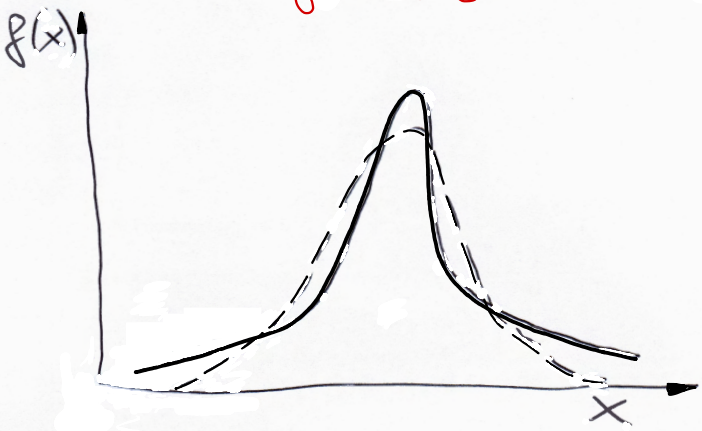
S>0:
- positive asymmetry
- asymmetry to the right
- left-modal



K<3: platykurtosis, less prob. in the tails



K>3: leptokurtosis, more prob. in the tails, "fat tails"



---- std. norm. distr.