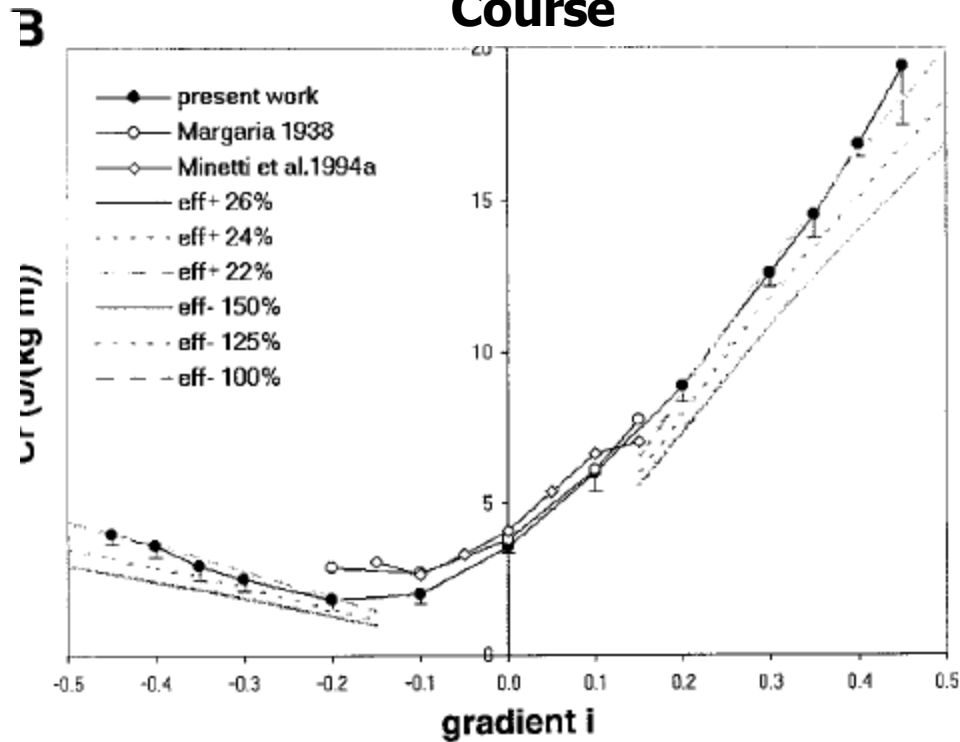
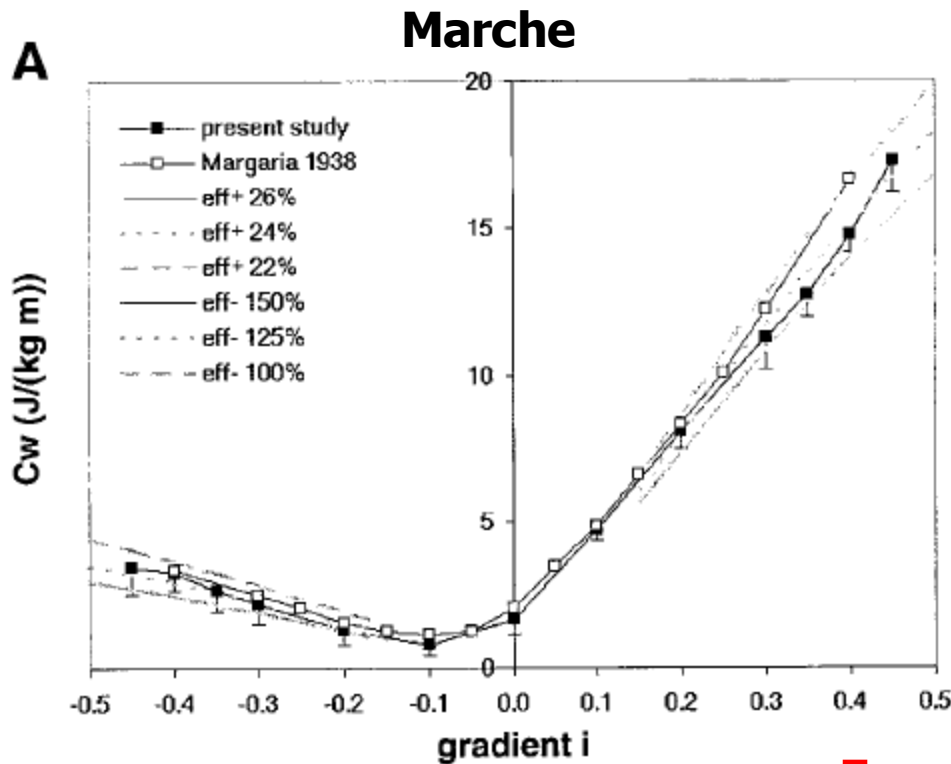


Running – effect of slope



Energy cost

uphill: energy cost proportional to the slope > 15%, efficiency is 22-24% (id. cycling)

Downhill: energy cost lower at slope -20%

Minetti AE, Moia C, Roi GS, Susta D, Ferretti G. Energy cost of walking and running at extreme uphill and downhill slopes. Journal of Applied Physiology. 2002 Sep;93(3):1039-46.

Ultra-Trail , Tor des Géants, 330 km, D+ 24000 m

