Task: calibrate LDM

1. Consider experimental masses of even-even nuclei (file masses2016.txt)
   https://www-nds.iaea.org/amdc/ame2020/mass_1.mas20.txt
2. Take LDM mass expression

$$B = a_{vol}A - a_{surf}A^{2/3} - a_{sym}\frac{(N-Z)^2}{A} - a_C\frac{Z^2}{A^{1/3}} - \delta(A)$$

2. Use chi-square approach to determine LDM parameters $\boldsymbol{p}=(a_{vol}, a_{surf}, a_{sym}, a_C)$
3. Compute the Hessian and covariance matrices
4. Compute the matrix of correlations between LDM parameters
5. What is the effective number of LDM parameters?
6. Will the result be the same if the model is calibrated to the binding energy per nucleon B/A