Higher-Order Submatrix Methods

• Background
  – Based on the original submatrix method that was used in recent record-breaking works (https://arxiv.org/abs/2205.12182, https://doi.org/10.1016/j.parco.2022.102920) higher-order submatrix approximations can be derived that are more accurate.

• Goal
  – Development and implementation of higher-order submatrix methods with a focus on the reduction of the computational complexity

• Prerequisites
  – A very good understanding of linear algebra
  – Interest in complexity estimation of algorithms

• Contact
  – Chrstitian Plessl, chrstitian.plessl@uni-paderborn.de