**Title**: Hierarchical Cancer Heterogeneity Analysis Based On Histopathological Imaging Features

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**R files:**
The following.R files are submitted.
  *(Main functions for the implementation of the proposed method)*
1. function.R: This file includes all main functions of proposed method to support numerical simulation studies and real data analysis. Detailed descriptions and manuals of these functions can be found in the notes to this R file.
  *(Codes for simulation studies)*
2. sim-func.R: This file includes functions for generating simulated data and evaluating performances of the proposed method, which are used to support numerical simulation studies. Detailed descriptions and manuals of these functions can be found in the notes to this R file.
3. main.R: This file is used to conduct simulation studies.
  *(Codes for real data analysis)*
4. LUAD.R: This file is used to perform hierarchical heterogeneity analysis based on LUAD image data.

**Example:**
Please refer to codes in main.R