Here you can find the analysis code and data materials for the article *"Mu rhythm suppression over sensorimotor regions is associated with greater empathic accuracy"*:

- **Main analysis**: In this folder, you can find the data and R code used in the main manuscript:
  - *Data_3Seconds_Experiment1* – Experiment 1 epoch-level data (mu rhythms data was extracted in the range of 8–13Hz).
  - *Data_3Seconds_Experiment2* – Experiment 2 epoch-level data (with the individualized mu rhythm range).
  - *Data_VideoLevel_Experiment1* – Experiment 1 video-level data (mu rhythms data was extracted in the range of 8–13Hz).
  - Data_VideoLevel_Experiment2 – Experiment 2 video-level data (with the individualized mu rhythm range).
  - *Analysis Script- Mu rhythm suppression over sensorimotor regions is associated with greater empathic accuracy* – R code of the two experiments analysis.
- **Raw EEG data**: In this folder, you can find the raw EEG files of all the participants analyzed
  - *Experiment 1* – EEG files of participants from experiment 1**.**
  - *Experiment 2* – EEG files of participants from experiment 2**.**
- **Supplementary:** In this folder, you can find the data that was used in the supplementary materials and the determined Individual mu rhythm range for each participant:
  - *Data_VideoLevel_individualMuRange_Experiment1* – Experiment 1 video-level data with each participant's individualized mu rhythm range.
  - *Data_VideoLevel_withoutIndividualMuRange_Experiment2* – Experiment 2 video-level data using the range of 8–13Hz for all participants mu rhythm extraction.
  - *individualMuRange_Experiment1* – The individualized mu rhythm range for each participant from experiment 1 that was used to extract their mu rhythm data*. The meaning of each column:*
    - *subject* – Participant number
    - *peak_c3* – The maximum power peak in the 8–13Hz range over the C3 cites across all videos (detected manually). If the maximum power peak could not be identified, we used 10Hz as a default.
    - *peak_c4* – The maximum power peak in the 8–13Hz range over the C4 cite across all videos (detected manually). If the maximum power peak could not be identified, we used 10Hz as a default.
    - *mean_c* – The mean value of peak_c3 and peak_c4.
    - *Min_c* – The minimum value of the individual mu rhythm range.

        - *Max_c* – The maximum value of the individual mu rhythm range.
    - *individualMuRange_Experiment2* – The individualized mu rhythm range for each participant from experiment 2, which was used to extract mu rhythm.