



Figure 1. Determination of the optimal number of modes of variation for FSL-FIRST to detect differences between mTLE and control hippocampal volume estimates. The effect size is reported as the average percentage volume reduction in mTLE hippocampi compared to controls. The greatest volume difference is observed when the number of modes = 50.

|                    | Manual                      | Freesurfer                  | FSL-FIRST                   |
|--------------------|-----------------------------|-----------------------------|-----------------------------|
| control left hipp  | 0.198 - 0.256 (2917 - 4072) | 0.252 - 0.337 (3765 - 5299) | 0.277 - 0.385 (3823 - 6321) |
| mTLE left hipp     | 0.116 - 0.200 (1766 - 3201) | 0.189 - 0.291 (3015 - 4146) | 0.234 - 0.318 (3580 - 5698) |
| control right hipp | 0.198 - 0.271 (3052 - 4106) | 0.285 - 0.352 (3839 - 5555) | 0.329 - 0.399 (4657 - 6169) |
| mTLE right hipp    | 0.198 - 0.261 (2752 - 3994) | 0.266 - 0.365 (4071 - 5864) | 0.269 - 0.393 (4477 - 6475) |

**Table 1.** Volume ranges for hippocampi as a percentage fraction of total brain volume. The raw volume measurements in mm<sup>3</sup> shown in brackets.