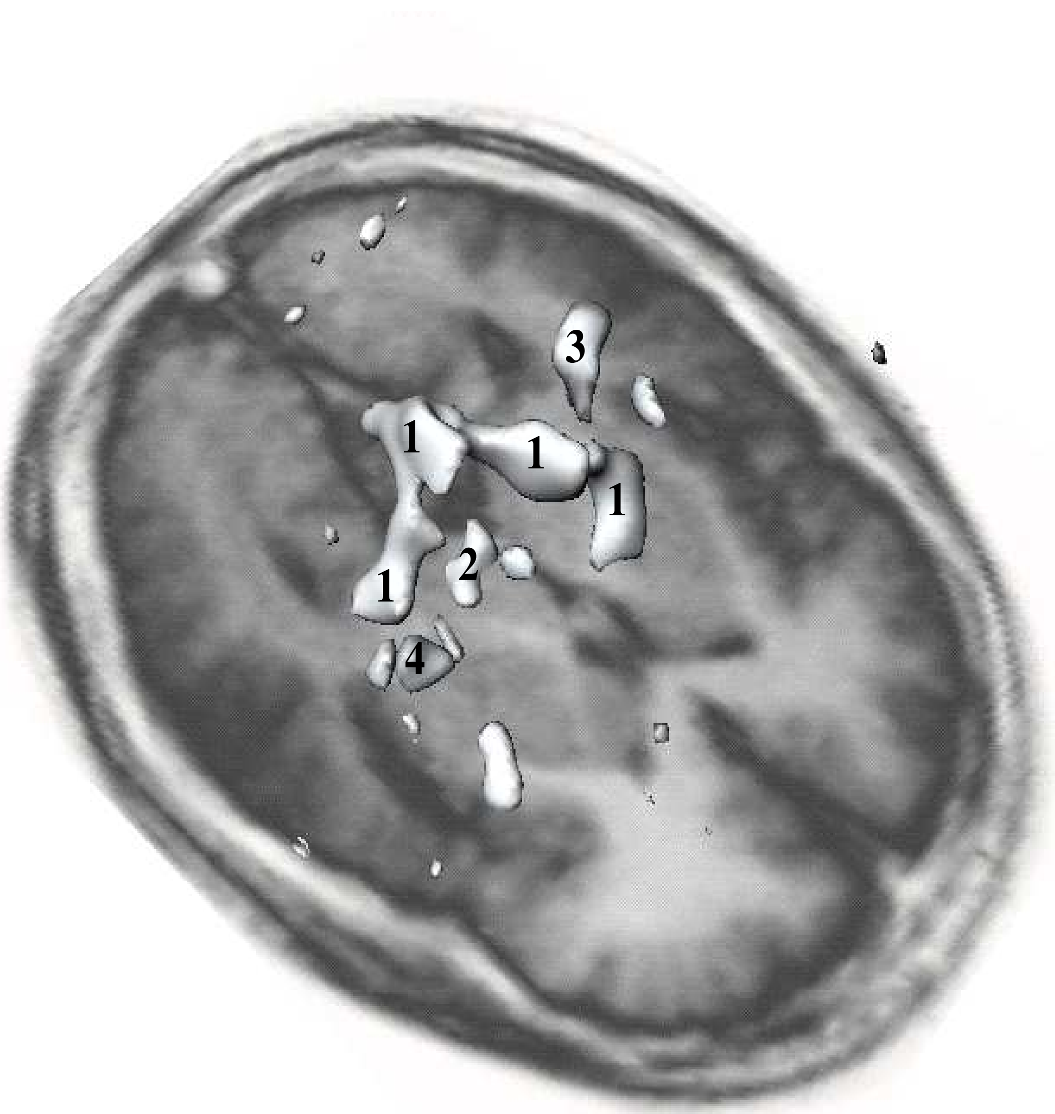

Figure 1: The excursion set of the t random field above level 5 (white blobs) for testing changes in blood flow between the painful heat stimulus and the warm baseline stimulus. The four largest connected components in the excursion set, numbered 1 to 4 in decreasing order of their sizes, have volumes that are significant at the 0.1 level. Also shown is a horizontal MRI slice showing anatomy through the middle of the average brain. Note this slice went through Region 2, part of which lies below the slice.

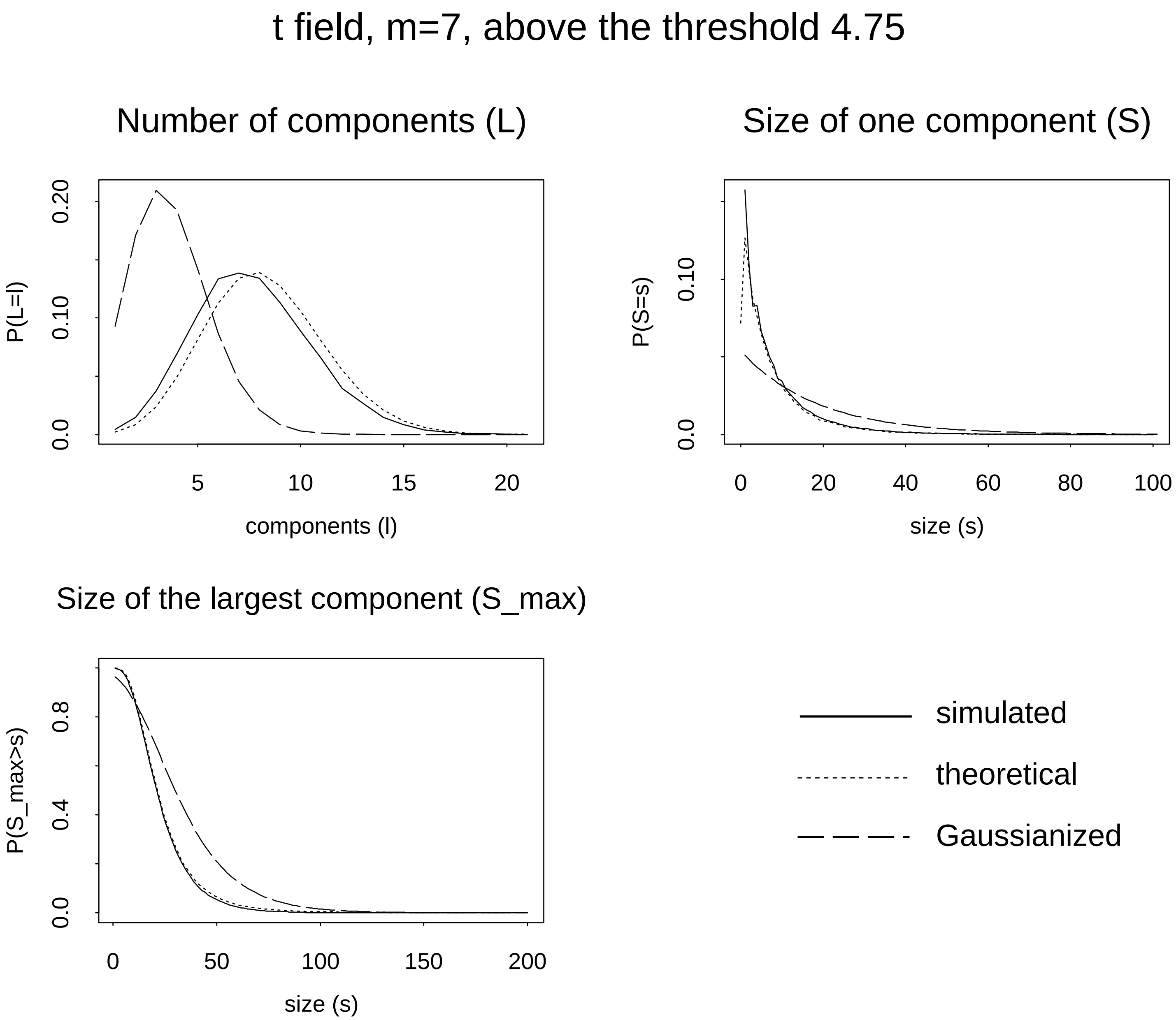

Figure 2: Validation for the size of connected components of the excursion set above threshold $t = 4.75$ for a t field with $m = 7$.

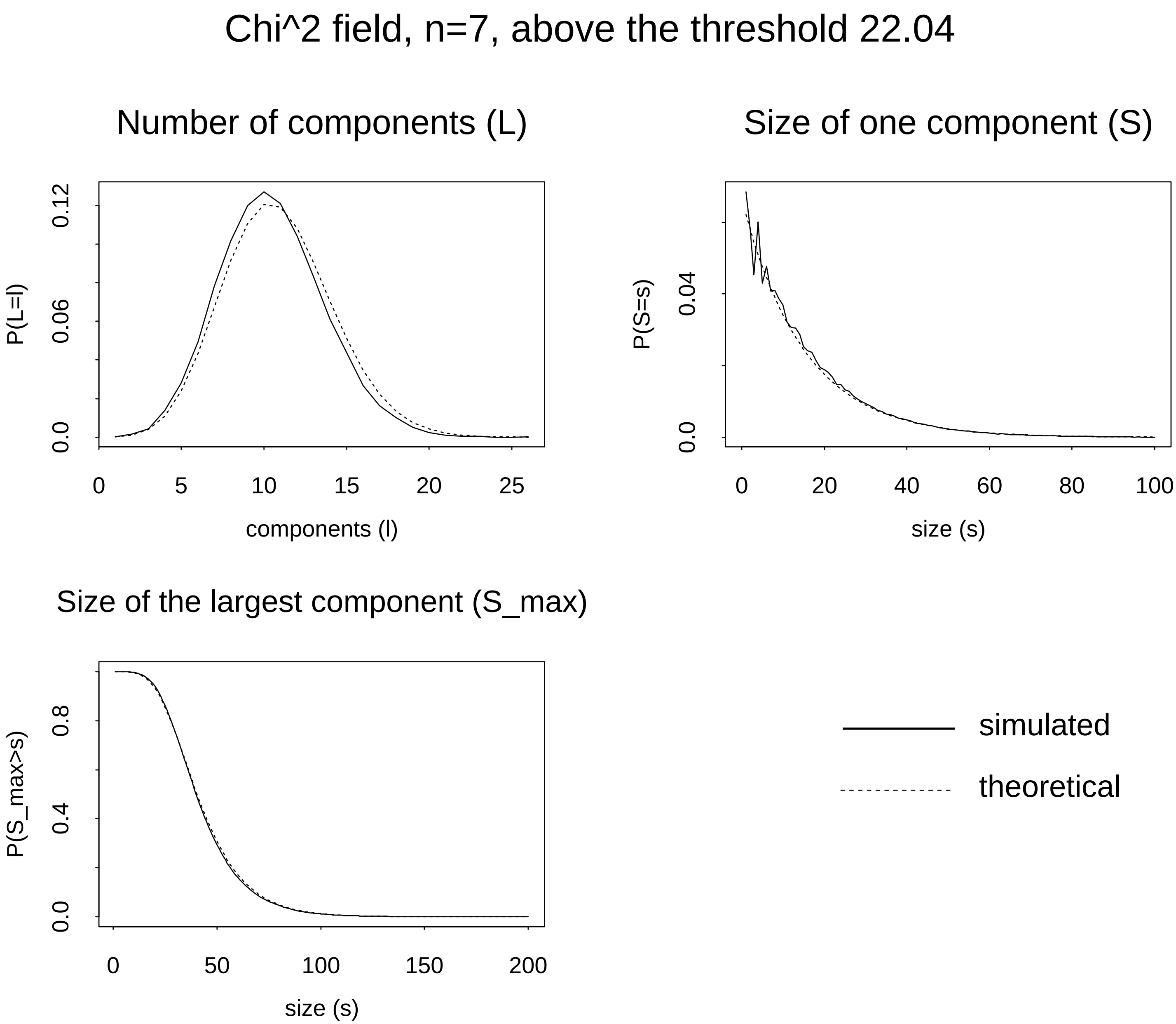

Figure 3: Validation for the size of connected components of the excursion set above threshold $u = 22.04$ for a χ^2 field with $n = 7$.

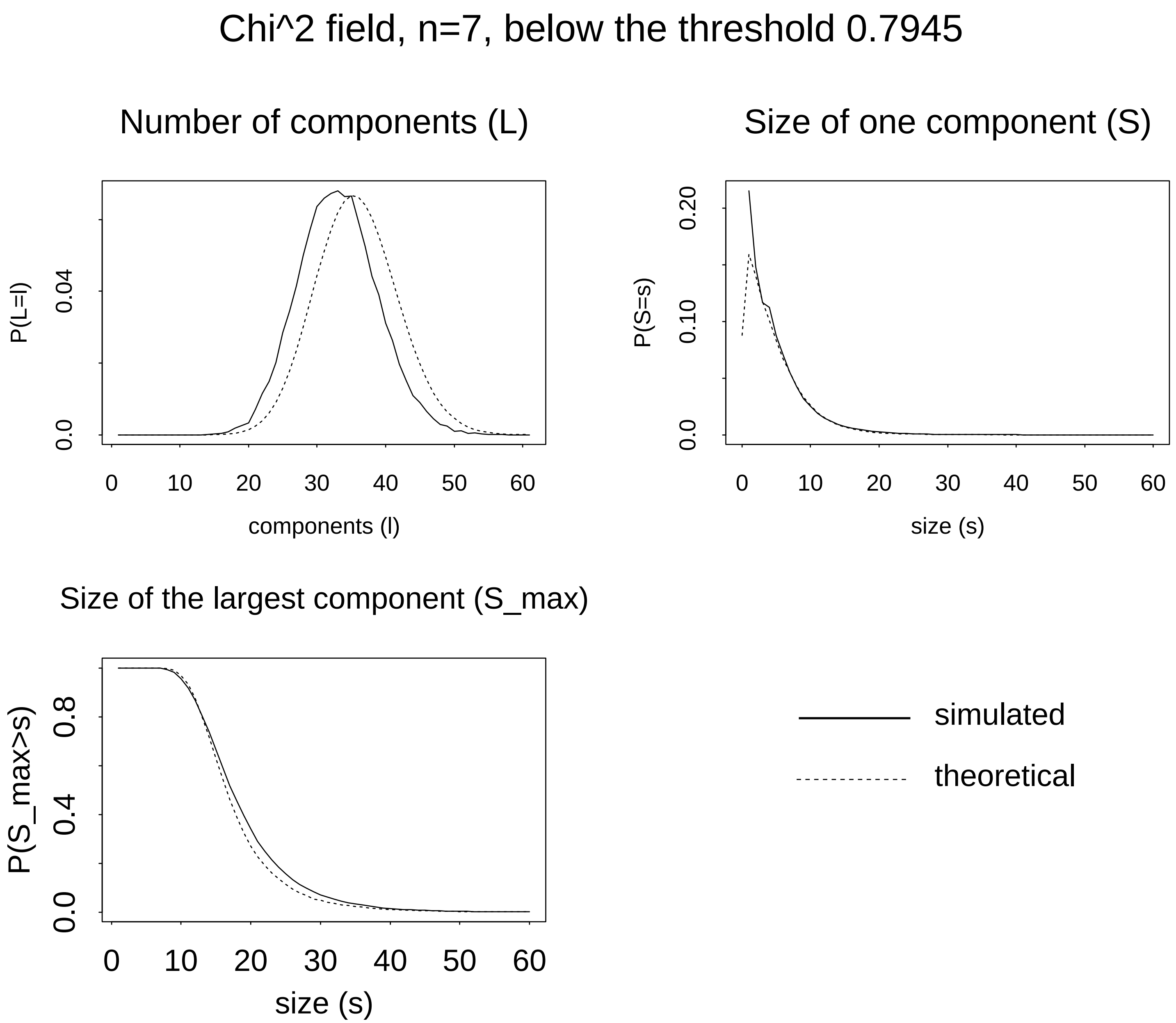

Figure 4: Validation for the size of connected components of the excursion set below threshold $u = 0.7945$ for a χ^2 field with $n = 7$.

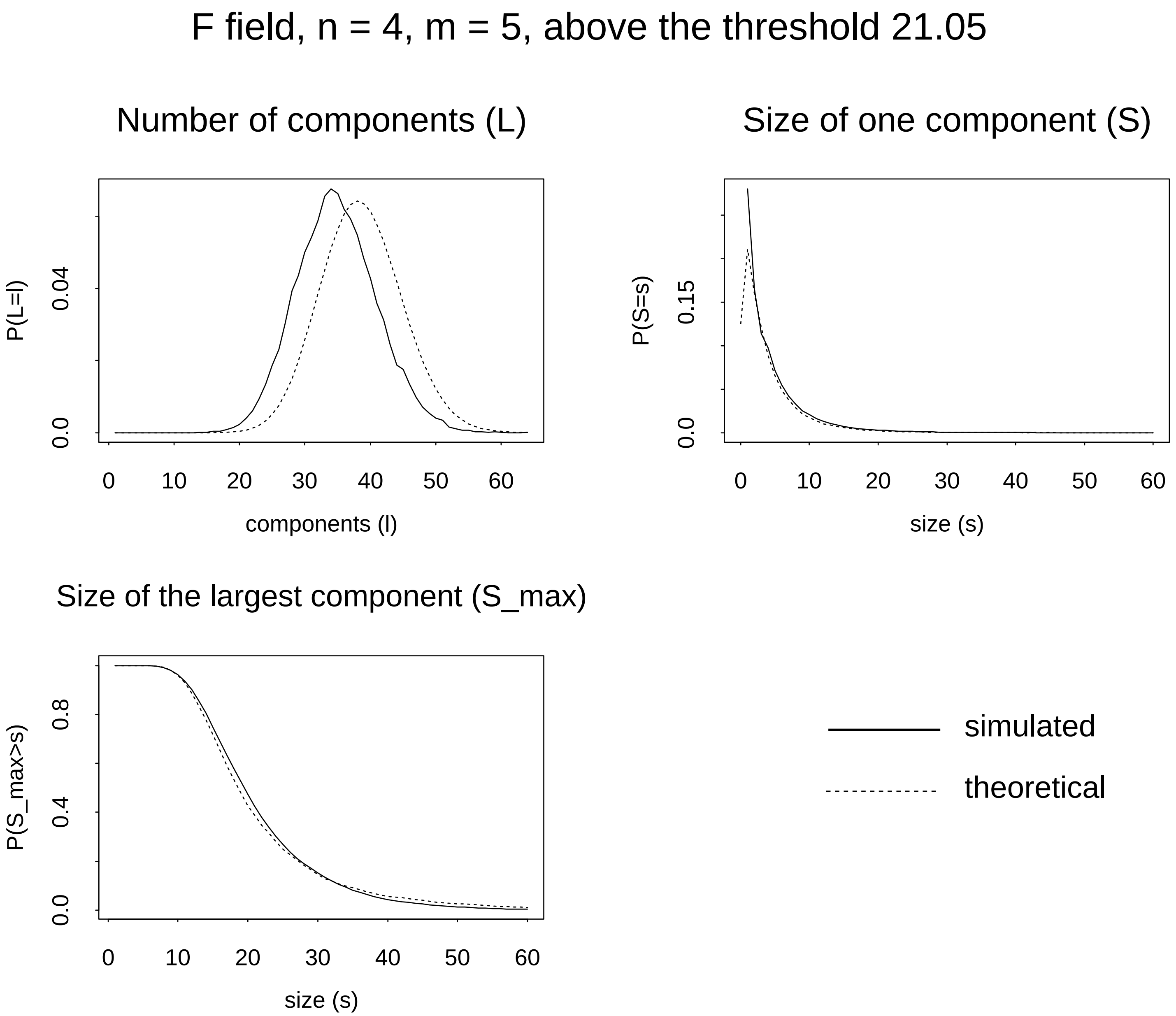

Figure 5: Validation for the size of connected components of the excursion set above threshold $f = 21.05$ for an F field with $n = 4$ and $m = 5$.