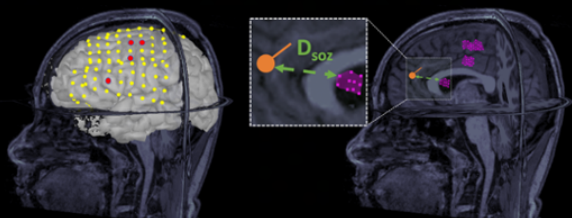


a. Dipole's Level of Clustering (LOC)

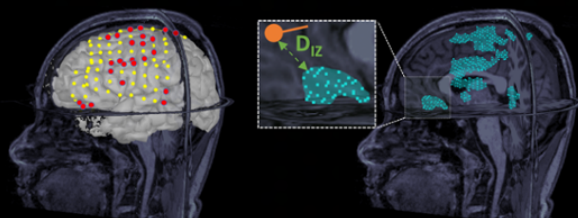


b. Distance from SOZ (D_{SOZ})



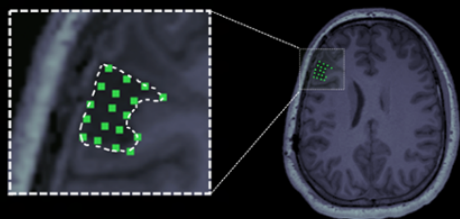
• ECOG contacts • SOZ contacts • SOZ volume

c. Distance from IZ (D_{IZ})



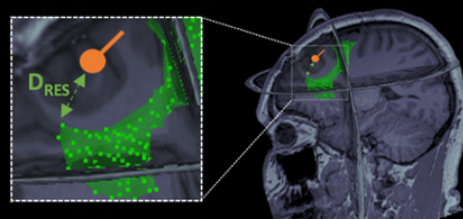
• IZ contacts • IZ volume

d. Resection marking



■ Head points inside resection • Resection outline

e. Distance from Resection (D_{RES})



• Resection volume

Fig.1. Estimation of Dipole level of Clustering (LOC) and Distances from Seizure Onset Zone, Irritative Zone, and resection. (a) Left: Example of a dipole (dipole A) with high clusteriness, i.e. high number of surrounding dipoles ($n=7$) within a radius of 15 mm (white dash circle). Dipoles that are outside the 15-mm radius of dipoles A do not contribute to LOC. Right: Example of dipoles with low LOC (i.e. with 1 or 2 surrounding dipoles). (b) iEEG contacts belonging to the SOZ (in red) defined the SOZ volume (purple) in the MRI space. Euclidian distance (green arrow) of each dipole (orange) from the closest point of the SOZ volume was computed (D_{SOZ}). (c) iEEG contacts belonging to the IZ (in red) defined the IZ volume (cyan). Euclidian distance (green arrow) of each dipole from the closest point of the IZ volume was computed (D_{IZ}). (d) Definition of the resected cavity (green points) on the postoperative MRI after its coregistration with the preoperative MRI. (e) Euclidian distance (green arrow) of a dipole (orange) from the closest point of the resection (D_{RES}).