



Lower bounds for volumes of nodal sets: an improvement of a result of Sogge-Zelditch

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We use the Dong-Sogge-Zelditch formula to obtain a lower bound for the volume of the nodal sets of eigenfunctions. Our result improves the recent results of Sogge-Zelditch and in dimensions $n \leq 5$ gives a new proof for the lower bounds of Colding-Minicozzi.

Comments: This is a revised version which improves the result of the earlier version

Subjects: **Analysis of PDEs (math.AP)**; Differential Geometry (math.DG); Spectral Theory (math.SP)

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