**Reviewer #1:** The design of this manuscript is very well though of, and will sure increase further our understanding on the role of disrupted thalamic FC in the pathophysiology of treatment resistant schizophrenia. I have only only few concerns, which I have highlighted in the manuscript attached below.

**Response)** Thank you for your kind feedback. As suggested, we revised the highlighted parts.

**Reviewer #2:** In this study , the authors examined the FC of thalamic subregions with cortical networks and voxels, and the associations of this FC with clinical symptoms in patients with treatment-resistant schizophrenia (TRS). They found altered FC within thalamic subregions and cortical functional networks, and within the thalamocortical pathway. This study improves our understanding of the relationships between the thalamocortical pathway and symptoms of TRS. The paper may benefit from some minor revisions.

(1) References can be used more in recent three years.

**Response)** Thank you for your comment. We deleted some old references and added more recent ones.

(2) The FC between subregion 2 and LON network is abnormal in Figure 1. However, the paper describes that the FC between subregion 2 and Mo network has increased significantly. This is inconsistent.

**Response)** Sorry for the typo. We revised Figure 1.

(3) Figures 2, 3, and 4 are not clear enough to read.

**Response)** As suggested, we enhanced the figure resolution.

(4) It would be better to separate the conclusion part.

**Response)** We separated the conclusion part.

(5) In supplementary files, I couldn't see Fig S1.

**Response)** Sorry for the missing which, I think, was related to technical error of the website, not uploading by our side. We corrected it.

(6) How to segment the subregions of the thalamus? Could you describe the steps in detail?

This is the basis of the article.

**Response)** The thalamus network atlas provided by reference 13 was used (https://neurovault.org/images/111302/). In short, 'Hwang et al (2017) first performed a custom winner-take-all functional parcellation using rs-fMRI data. They calculated partial correlations between the mean BOLD signal of each cortical functional network and the signal in each thalamic voxel, while removing signal variance from other functional networks. Partial correlations were then averaged across subjects, and each thalamic voxel was labeled according to the cortical network with the highest partial correlation.'

(7 ) Reference of CONN toolbox should be given.

**Response)** As suggested, reference of CONN toolbox was added. In line 147, the CONN toolbox (www.nitrc.org/projects/conn, RRID:SCR_009550).

**Reviewer #3:** I really appreciate the opportunity to review the manuscript 71969 entitled: "Altered thalamic subregion functional networks in patients with treatment-resistant schizophrenia". This manuscript aims to investigate the functional connectivity analysis of thalamic subregions with cortical networks and voxels in patients with treatment resistant schizophrenia , and important novel findings regarding the pathophysiology of treatment resistant schizophrenia were obtained. The paper is very interesting and well written, methodologically unexceptionable, and the new implementations provide a valid contribution to the work.

But the scanning parameters need further confirmation, for example, Three-dimensional T1-weighted images were acquired using a magnetization-prepared rapid gradient echo sequence (repetition time [TR]: 1,900 ms; echo time [TE]: 2.5 ms; flip angle: 9°; field of view [FOV]: 250 mm; image matrix: 256 × 246 mm; voxel size: 1.0 × 1.0 × 1.0 mm3; 176 slices). If FOV = 250 mm, image matrix: 256 × 246 mm, the voxel size can't be accurate to 1.0 × 1.0 × 1.0 mm3.

**Response)** Thank you for your comment. We checked again with the MRI engineer, and confirmed that voxel size, 1.0mm x 1.0mm x 1.0$mm^3$, was accurate