

1 *Supplement of*

2 **The crustal magma reservoir geometry and seismic**
3 **activity beneath the Wudalianchi volcano in northeast**
4 **China: Implications for the multilevel magmatic system**

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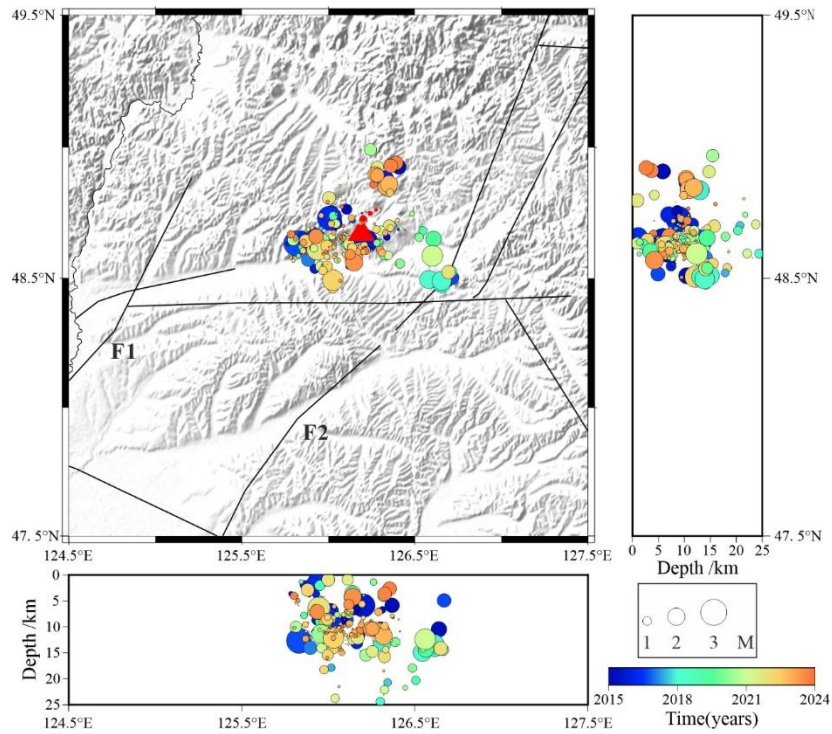
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30 **Figure S1: The temporal variation of the seismicity beneath the WDLC volcano.**

31 **The circles represent the epicenters of the earthquakes and the sizes of the circles**

32 **represent the magnitudes of the earthquakes.**

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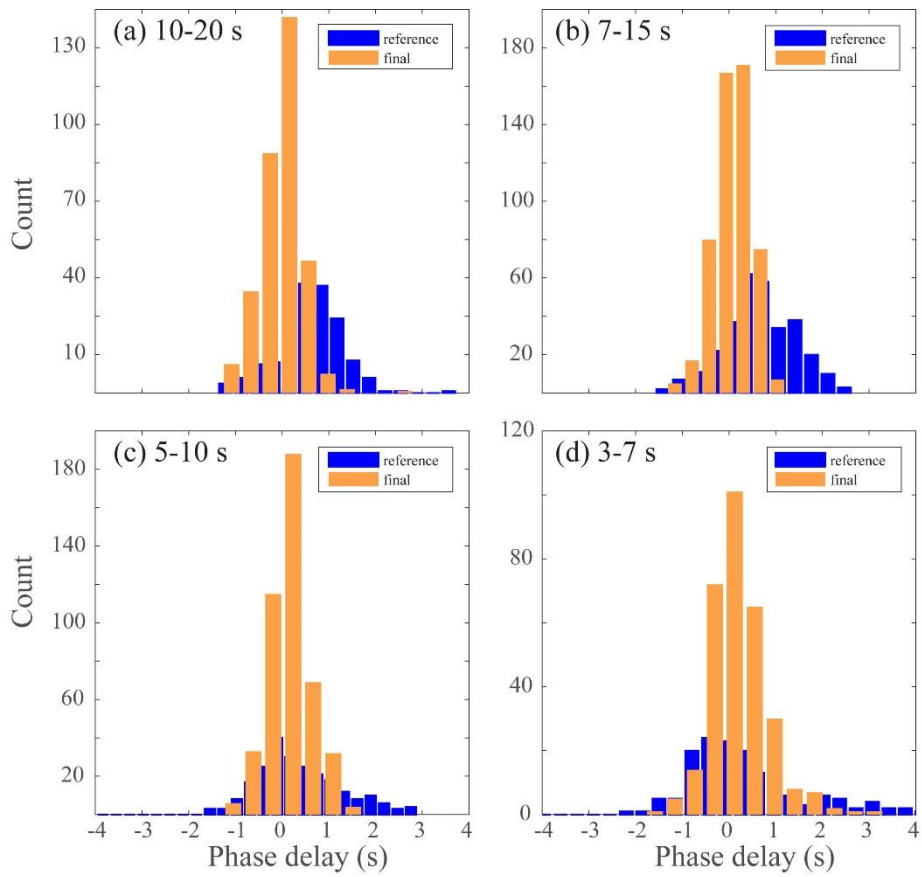
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48 **Figure S2: Histograms of phase delays at periods of (a) 10-20 s, (b) 7-15 s, (c) 5-10**
 49 **s, and (d) 3-7 s, respectively. The blue label represents the initial reference model,**

50 **whereas the yellow label represents the final velocity model.**

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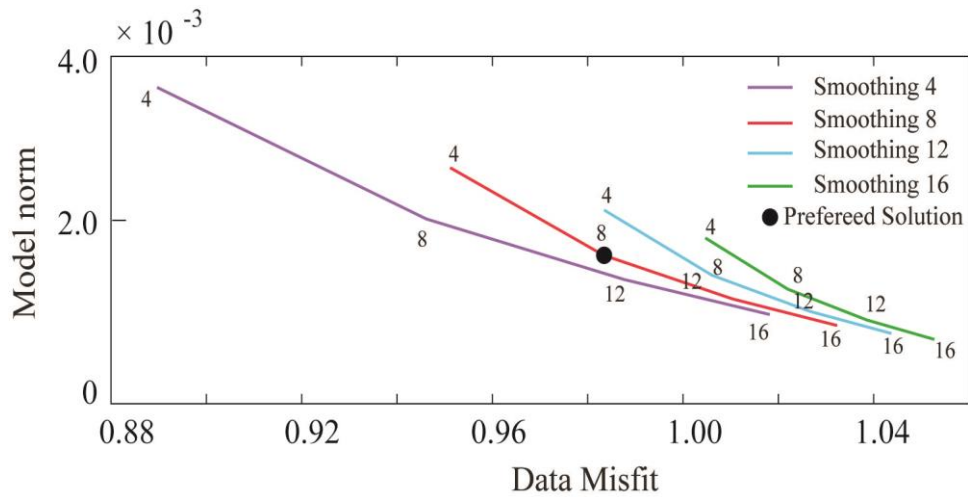
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59 **Figure S3: Model norm and data misfit for a set of smoothing (4, 8, 12, 16) and**
 60 **damping (4, 8, 12, 16) parameters in the final iteration. We select the damping and**
 61 **smoothing parameters based on the tradeoff curve between the model norm and**
 62 **the data misfit. The black dot represents the preferred parameters (smoothing =**
 63 **8, damping = 8).**

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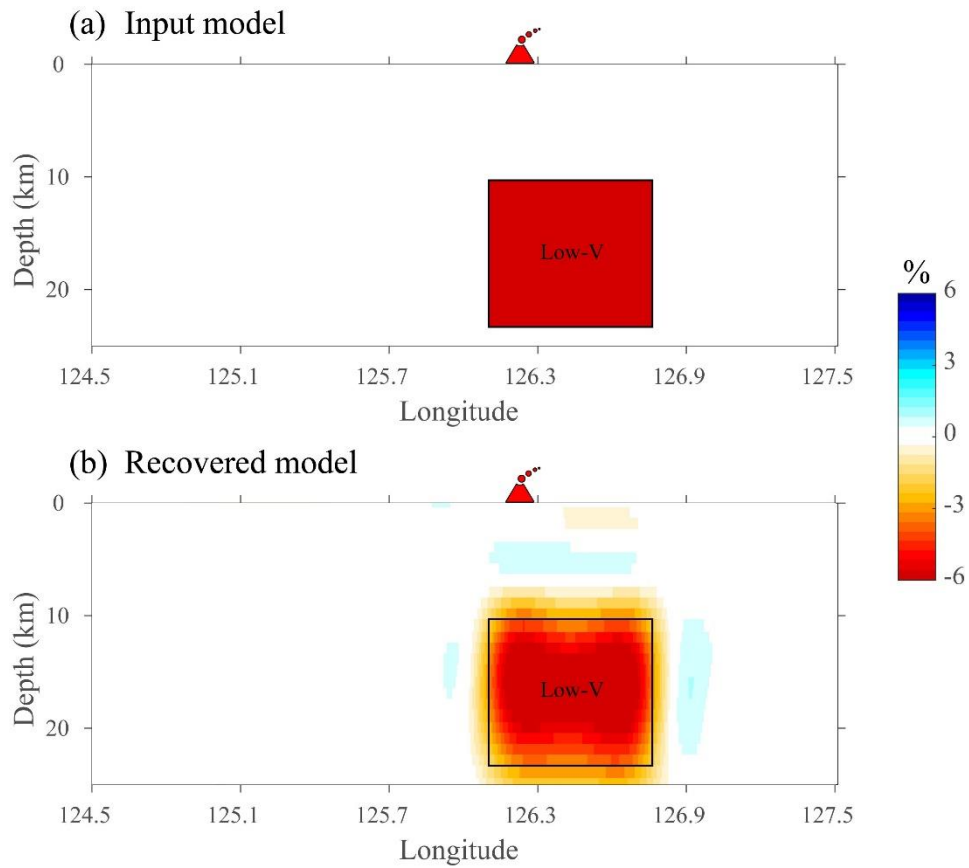
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86 **Figure S4: Model recovery test for the low-velocity (Low-V) body beneath the**
87 **WDLC volcano. Panel (a) is input model and panel (b) is the corresponding**
88 **recovered velocity model.**

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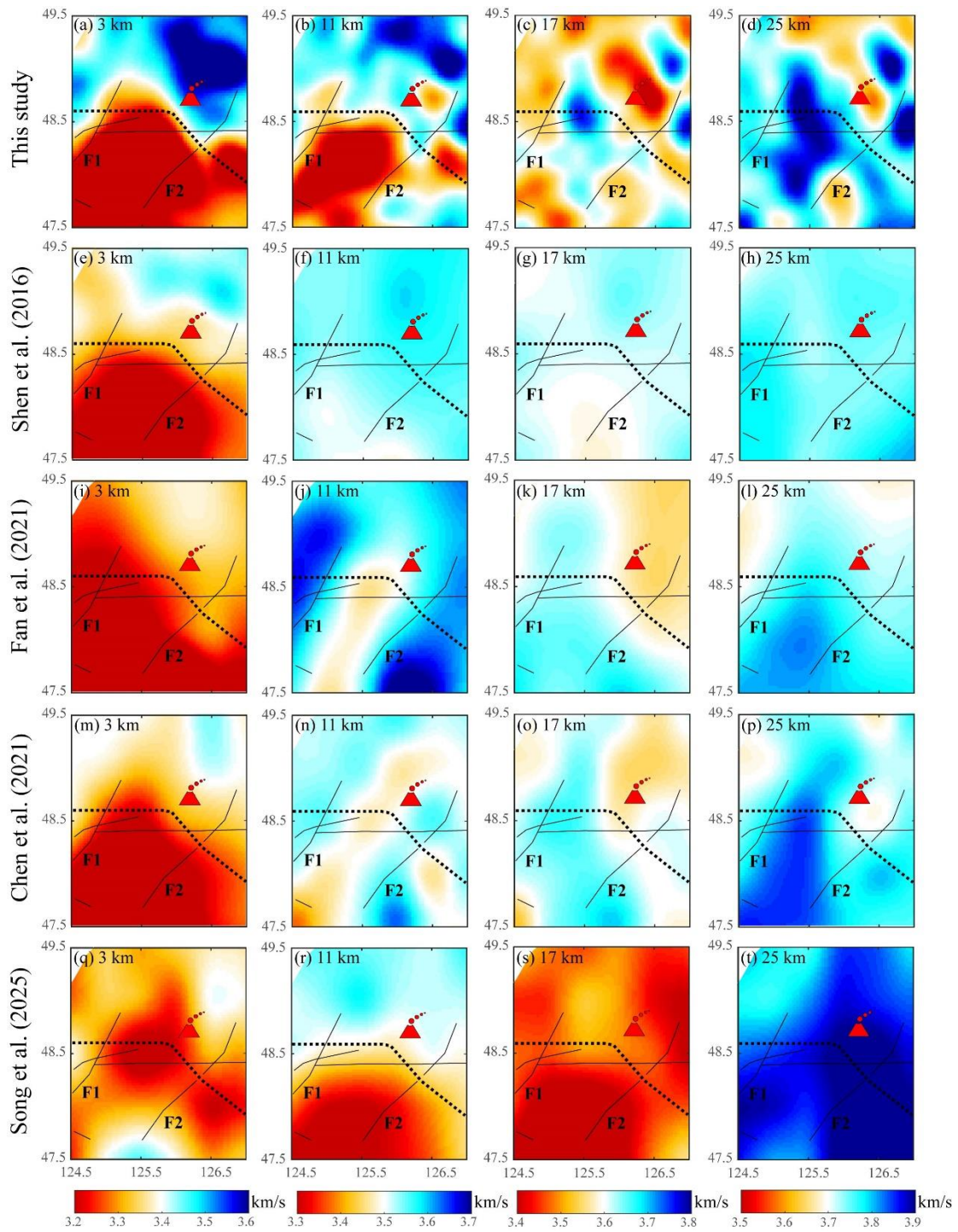
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104 **Figure S5: Comparison between our shear-wave velocity model and recent shear-**
 105 **wave velocity models at depths of 3 km, 11 km, 17 km, and 25 km, respectively.**

106 **The symbols are the same as in Figure 6 in the main text.**