The configuration suggested by M2018 can be approximated by the analysis for flexural doming above an igneous intrusion presented by Turcotte & Schubert (2002). In this analysis, the roof of the intrusion is flexed up by magmatic pressure that exceeds lithostatic. The maximum deflection w is given by:

$w = \frac{pL^4}{384D}$, where p in our case is the dynamic pressure (total pressure less lithostatic), L is the distance along the upper plate boundary over which this pressure is applied, and D is the flexural rigidity. D is given by:

$D = \frac{Eh^3}{12(1-\nu^2)}$, where E is Young's modulus, h is the effective elastic thickness of the upper plate, and ν is Poisson's ratio. I estimate the following values, based on Figure 2A from M2018, for the region between 40 and 100 km depth in the subduction zone.

L = 175 km;

p = 1.5 GPa averaged over L.

For the mechanical parameters, I have taken the following values from Jordan and Watts (2005) for the upper plate:

E = 10^{11} Pa,

h = 20 km (Jordan and Watts give a range from 0 – 20 km for the effective elastic thickness in Tibet, so I have taken a conservative value),

ν = 0.25.

The predicted deflection is 50 km.