The paper uses numerical conformal bootstrap techniques to put new constraints on 3d CFTs with $O(N)$ global symmetry. These are obtained by studying 4-point functions of scalars t_{ij} in the rank 2 tensor representation of $O(N)$, assumed to be part of the CFT. After a general discussion on the bounds obtained for the lowest dimensional operators in the different OPE sectors for several values of N, the paper focuses on $N = 4$. This is motivated by the existence of a CFT associated to the so called ARP^3 model, confirmed by a lattice analysis but not confirmed by an ϵ-expansion resummation. A mixed bootstrap analysis involving t_{ij} and a singlet scalar is also considered.

The paper contains original and interesting results. The most notable ones are upper bounds on the scaling dimensions of operators in the representations exchanged in the $t \times t$ OPE for several values of N and, for $N = 4$, the existence of a set of assumptions on the spectrum which gives rise to an allowed island in parameter space in the region of scaling dimensions found by the lattice results for the ARP^3 model. The authors provide also some technical comments on how to impose certain assumptions, which might be useful for future numerical analysis.

In section 1.3 there is an imprecision/inconsistency, which does not affect the main results of the work, but should nevertheless be fixed:

- In eq.(4) the index a in $F^a_{\mu\nu}$ should run from 1 to $M(M-1)/2$ and not from 1 to M. The representation of ϕ^a_i under $SO(M)$ is never specified and there is an inconsistency in its choice. The covariant derivative in eq.(4), the formula in the text in the last row of page 6, and the form of B_{ijk} in the next to last paragraph of section 1.3 in page 7 suggest that ϕ^a_i is in the adjoint representation. On the other hand, the text after eq.(4) indicates a fundamental representation. Similarly the large N results of [48], eq.(5), apply for fields ϕ^a_i in the fundamental representation of $SO(M)$ (and fundamental of $O(N)$).

In addition to the typos already pointed out by the other referee:

1. In eq.(3), "Tr" $\rightarrow$ "Tr" in the second trace.
2. A final period is missing in footnote 3.
3. After eq.(7) "the the" $\rightarrow$ "the".
4. End of third paragraph in page 18: "assymptote" $\rightarrow$ "asymptote".
5. Beginning of section 4, page 19, " the the" $\rightarrow$ "the".
6. Page 27, paragraph after item 5, a final period is missing.
7. Caption figure 21: "(Δ_t, Δ_t)" $\rightarrow$ "(Δ_t, Δ_s)".

I am happy to recommend the paper for publication after the above imprecision has been fixed.