For our perpendicular S and L $(\pm\sqrt{1-x^2}, x, 0, \dots, 0)$ are the only fixed points found into $\mathbb{R}^N$ they are isolated

ignored ?

8. Page 9, to: In general, $S \cap L$ is only a *subset* of the set of fixed points of $T_{S,L}$. While in your setting it is clear that here $S \cap L$ is unique in the positive open halfspace, it is not clear to me why the set of fixed points of $T_{S,L}$ is unique there. So I don't see why you can speak of an "isolated fixed point of $T_{S,L}$" without further justification.

couldn't find

9. Page 9, line +4: Please replace ". Then" by ". Then".

it is clear from form of $T_{S,L}$

10. Page 10, Theorem 2: In what sense do you use the adjective "critical" here? Presumably not in the sense of having-gradients-equal-to-zero, in which case it is more clear to delete "criticial".

11. Page 14, top, regarding the following

$$x_{n+1}(2) - 1 = x_n(2)(1 - 1/\rho_n) > 1.$$

0

   (a) Should the last "1" be "0"?

   (b) If so, why is $x_n(2) > 0$? I don't see this. Is it part of the assymption on the starting point, i.e., $x_0(2) > 0$. If so, Theorem 4 on that page needs to be modified accordingly.

12. Page 14, Theorem 5:

   (a) Replace "$h > 1$" by "$\alpha > 1$".

   (b) "Initial point $x_n(2)$": $x_n(2)$ is not a point to me, but rather a coordinate of one. Also, "initial" suggests $n = 0$?

   reworded to avoid the misinterpretation made here

   (c) In fact, I don't think you need to assume anything on $x_n(2)$.

   (d) The statement is confusing to me: "divergence at **an**(?) at least linear rate" suggests to me that the *quotient* is bigger than 1. In the proof, it becomes clear that you mean the *difference* of consecutive iterates. Why not state the inequality and remove any ambiguity?

   reworded but, didn't

   ?

   (e) In the proof, replace "$> \alpha-1$ as $x_n(2) < \rho_n$" by "$\geq \alpha-1$ as $x_n(2) \leq \rho_n$" which shows that ~~nothing~~ has to be assumed about $x_n(2)$ in the statement.

   but those are correct, no assumption is made on $x_n(2)$.

13. Page 15, Section 6, fourth paragraph, "all non-zero points on this line remain fixed under $T_{S,L}$": This is not correct, it is only true for all points of the form λb, where $\lambda > 0$, due to the evaluation of $\|\lambda b\|$.