

The referee's report on the revised version of the paper 'Properties of moments of density for nonlocal mean field game equations with a quadratic cost' by O.S. Rozanova and M.V. Inyakin

The paper was essentially, revised. However, I am still unhappy with the existence of solution to the Ricatti equation in Lemma 1 (see also Remark 1). I think that it is correct to consider only a short time interval where the solution of Ricatti equation does not blow up. Certainly, this leads to an extra condition. Nonetheless, it is constructive since the interval where the Ricatti equation admits a bounded solution, in my opinion, can be evaluated using the coefficients and the initial data. This condition will substitute condition (9). If the authors would like to keep their present approach, I recommend to explain the meaning of the solution of the MFG system with infinity coefficients and why the changing of boundary condition to $A^{-1}(T_1)$, where T_1 is a time of blowing up, works?

Additionally, I think that in Lemma 1 there is a misprint. In the phrase 'The coefficients $A(t)$, $B(t)$, $C(t)$ are uniquely defined by the terminal conditions (16).' it should be (8).