

The authors have responded to all the questions and requests I made in the first round of reviews. Therefore, I recommend publication of this very interesting and well-written paper.

At the authors' discretion, I suggest that the paper could be further improved by addressing the following points:

- What is the mean value of the normal distributions used for drawing the momenta, eq. (23)? Is it unity?
- If the transformation (17)-(19) was non-linear, would the authors have had to set those equations forward in the problem statement, including eq. (11)-(13), i.e., the Jacobian?
- More than resorting to Meta-Dynamics, which is difficult to perform in high-dimensional spaces, shouldn't the author be more interested in parallel tempering? Wouldn't this also help in assessing what the effect of the specific values of the masses would be?
- I would be curious to know why 6 evaluations of the derivatives of the posterior are required in the molecular dynamics part. Is the derivation of the energy six times more expensive than its evaluation because these are 6 evaluations, or is it actually  $6*6=36$  times more expensive?