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Comment on angeo-2022-2

Krzysztof Stasiewicz and Zbigniew Kłos

Author comment on "Fine structure and motion of the bow shock and particle energisation mechanisms inferred from Magnetospheric Multiscale (MMS) observations" by Krzysztof Stasiewicz and Zbigniew Kłos, Ann. Geophys. Discuss.,
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Considering the above public discussion we would like to express our trust that ANGIO takes decisions on the basis of merits of submitted manuscripts and not on unjustified opinions of one reviewer.

If the Reviewer#2 questions validity of the ExB or SRA acceleration mechanisms presented in this paper they could write a debate article/commentary on the below listed publications, where the foundations of these mechanisms have been laid down:

- [1] Stasiewicz, K.: Stochastic ion and electron heating on drift instabilities at the bow shock, MNRAS, 496, L133–L137, 115 <https://doi.org/10.1093/mnras/slaa090>, 2020.
- [2] Stasiewicz, K. and Eliasson, B.: Quasi-adiabatic and stochastic heating and particle acceleration at quasi-perpendicular shocks, The Astrophysical Journal, 903, 57, <https://doi.org/10.3847/1538-4357/abb825>, 2020.
- [3] Stasiewicz, K. and Eliasson, B.: Stochastic and quasi-adiabatic electron heating at quasi-parallel shocks, The Astrophysical Journal, 904, 173, <https://doi.org/10.3847/1538-4357/abfffa>, 2020.
- [4] Stasiewicz, K. and Eliasson, B.: Ion acceleration to 100 keV by the ExB wave mechanism in collisionless shocks, MNRAS, 508, 1888–1896, <https://doi.org/10.1093/mnras/stab2739>, 2021.
- [5] Stasiewicz, K., Eliasson, B., Cohen, I. J., Turner, D. L., and Ergun, R. E.: Local acceleration of protons to 100 keV by the ExB wave mechanism in a quasi-parallel bow shock, Journal of Geophysical Research: Space Physics, 126, e2021JA029477, <https://doi.org/10.1029/2021JA029477>, 2021.