In this paper the authors focus on the evaluation of BPS Wilson loops in the two-mass deformed ABJM theory. They exploit supersymmetric localization, which allows to determine an exact matrix model to compute them. The matrix model is evaluated in the M-theory expansion (large N, k fixed) with the help of the Fermi gas approach, which allows summing all orders in 1/N.

The technical part of the paper is the generalization of the Fermi gas approach in the presence of mass deformations. The authors adapt the general formalism already developed in the literature for the undeformed ABJM to their set-up.

They give a closed form for the 1/6 and 1/2 BPS Wilson loop expectation values in terms of Airy functions, which includes all the perturbative corrections in 1/N. The leading behavior is found to be given by the sum of two exponential factors that reduce to one in the superconformal limit.

The results are discussed in two strong coupling limit regimes, the M-theory, and the string theory limit. As the authors point out, if their field theory predictions were proved to match a holographic calculation (still missing), this would provide a non-trivial example of non-conformal holography.

Finally, a connection with one-dimensional defects is discussed. In particular, a strong coupling prediction for the Bremsstrahlung function and the one-point function of a dimension-2 operator on the defect is proposed. This may have interesting implications for the bootstrap program for the defect CFT.

All in all, the paper contains interesting results, which could be interesting within the context of non-conformal holography and for the non-perturbative study of defect CFTs. It is rather technical, but readable. The authors provide all the tools required to understand their calculations. Moreover, several non-trivial checks of their results are discussed, in particular the matching with the results of the conformal case obtained by turning the mass deformations off.

The paper deserves publication in SciPost. However, a few little corrections are suggested:

1) Page 6 – last paragraph below eq. (2.10): the "weaker condition" was originally proposed in ref [18] and later exploited in [62]. It should be fair to refer also to [18] there.
2) Second line after eq. (4.18): "an useful" should be "a useful"
3) Footnote 16, at page 31: in the first line, "operator" should be "operators".

4) First line of section 8: maybe with "extended" the authors meant "generalized". This should be corrected.

I don't need to review the paper after corrections.