

1 We first want to thank the reviewers for all their comments. You can be sure that they will all be taken into account in
2 the rewriting process. We are glad to see that you all seem enthusiastic about this paper and its impact in the MMAB
3 literature.

4 Overall, you seem to wish that some parts (especially Appendix C and the experiments) were a bit more detailed in the
5 main text. You may have noticed that some choices were made due to space constraints, including postponing these two
6 parts to the appendix. This choice was made because we believe that the whole part on SIC-MMAB2 is technically
7 interesting, but that its impact is less significant than SIC-MMAB and DYN-MMAB (same goes for the experiments).
8 However, the additional ninth page for the camera ready version would allow us to mention these parts in the main text
9 by giving the main points of Appendix C and quickly describing the results of the experiments, besides taking into
10 account all your other comments on the paper. We now specifically answer to each reviewer comments.

11 **Comments of reviewer 3:** As explained above, we should be able to add a description of the experiments and their
12 results in the main text, and even maybe the figures.

13 **Comments of reviewer 4:** As for reviewer 3 with the experiments, we should be able to add a short description of
14 the appendix C in the main text, as well as mentioning that Thm 3 and Eq 13 can be found there.

15 **Comments of reviewer 6:** All your comments will be taken into account in the paper.

16 - line 155-156 "Notice that players even use their own quantized statistics to accept/reject an arm instead of the exact
17 ones. Otherwise, the sets of accepted or rejected arms could differ between the players". The current phrasing indeed
18 seems confusing. What we mean is that when taking the decision of accepting/rejecting any arm, the player j does not
19 use its exact statistics $S_k^j(p)$ (which is more accurate) in the value of $\tilde{\mu}_k^j(p)$ but instead uses the less accurate, quantized
20 statistic $\tilde{S}_k^j(p)$. Mathematically, we wanted to stress that $\tilde{\mu}_k^j(p) = \frac{\sum_{m=1}^M \tilde{S}_k^m(p)}{T_k(p)}$ and not $\frac{S_k^j(p) + \sum_{m \neq j} \tilde{S}_k^m(p)}{T_k(p)}$.

21 By using $\tilde{S}_k^j(p)$, the value of $\tilde{\mu}_k^j(p)$ is the same for all j , whereas with the exact statistic $S_k^j(p)$ (only for j but $\tilde{S}_k^{j'}(p)$
22 for other j'), it would differ between players. It thus allows to have the same set of rejected/accepted arms among the
23 players. We hope that this explanation makes it clearer for you. We will think of a better rephrasing for this sentence.