

## Response to the Referee's Report on

### **Labeled Partitions and the $q$ -derangement numbers**

We fully agree with the comments and suggestions of the referee, and have revised the paper accordingly. Indeed, we are deeply grateful to the referee for the highly helpful suggestions and for the thorough reading of the manuscript. Here are the specific items in response to the referee's comments.

- (1) We improved the statement of Lemma 2.1.
- (2) Theorem 2.2 is restated in more details.
- (3) In the proof of Theorem 2.2, we followed the referee's comments to give a better explanation of the choice of  $s$ .
- (4) The meaning of "primes" which are associated with the insertion operation can be found in the paragraph below (1.3) which is on Page 2 and we have added an explanation in the proof of Theorem 2.2.
- (5) Yes, there is a minor error in the proof of the statement  $\pi^{n-k} = \pi$ , which has been corrected in the revised version.