LIST OF CORRECTIONS AND CHANGES

Corrected according to the First referee’s report

1. All w.r.t has been changed to w.r.t.
2. page 8, line 5: ‘minimum” was missing and inserted properly.
3. Page 30 Thm 1.7: $I_n$ and $I_m$ have been swapped.
4. page 39, line 3: Typo corrected.
5. Page 40, line 21: Reference has been added.
6. Page 42, line 12: ‘ket’ was missing and inserted.

Corrected according to the Second referee’s report

1. The reference are in lexicographic order i.e. according to the last name of the first author.
2. Page 2: Typo corrected and Neumark’s result is explained.
3. Page 3: The operator sum representation is explained with pure environment state and it can definitely be written for mixed environment state. It is, in fact, written just for mathematical simplicity. On the other hand environment state can always be purified further. So there is little need to consider mixed environment.
5. Page 9: 2 as logarithm base is used to measure entanglement in bits for general qudit system. A line added in page 9.
6. Page 10: Regularized Entanglement of formation is defined now.
7. Page 13: References added and Brodutch’s result has been elaborated.
8. Page 13: The reference corresponding to quantum discord has been corrected and Brodutch conclusion have been explained.
9. Page 17: All the references have been added.
10. Page 20 Author’s surname has been corrected and ‘proposed’ changed to ‘proved’.
12. Page 31, 32, 36: References have been mentioned.
13. Page 37, 38, 39, 41: Typos corrected.
14. Page 39: Entanglement monogamy has been clarified further.
15. Page 41: By quantum version we wanted to mean quantum discord. However to remove the ambiguity we rename it by quantum discord.
17. Page 54: References added.
19. Page 65: Figure number inserted.
20. Page 66: Spectral density function has been explained.
22. Page 97: B-92 state has been referred.
23. Page 98: The comparison is with dissonance. It can also be thought as discord since dissonance can be interpreted as the discord of separable state.