**Reviewer 1:**

In this paper, the authors discussed two - amplitude encoding, and encoding via a second order Pauli feature map. They compare these methods' performances across two near-term QML models, the  
quantum support vector machine (QSVM) and variational quantum classifier (VQC). It is shown that amplitude encoding is significantly resilient to classical transformations of data.  
  
This paper contains new and enough interesting results to be accepted after the following comments are taken into account  
  
1) The abstract should be rewritten, where the first part "" Several methodologies for performing parametric Quantum Machine Learning (QML) have been developed over the last several years. In general, these algorithms rely on hybrid implementations, where quantum methods define the networks and parameter updates are performed on a classical device. The encoding of classical data into quantum states within the Hilbert space is fundamental to training these hybrid models, this can be in a number of ways. """ should be compressed.  
  
2) In the introduction, the authors write ""In a broad sense Quantum Machine Learning (QML) is the overlap of quantum information science and machine learning [....]." citation should be added here  
  
Also, "" It still remains to be seen  
if quantum computers will demonstrate any advantage over classical computers for machine learning tasks [ ....]." The following references may be cited  
  
Zidan, M., Abdel-Aty, A.-H., El-Sadek, A., Zanaty, E.A., Abdel-Aty, M.  
Low-cost autonomous perceptron neural network inspired by quantum computation  
AIP Conference Proceedings, 2017, 1905, 020005 DOI: 10.1063/1.5012145  
  
T. Said, A. Chouikh, M. Bennai,  
N Two-Transmon-Qubit Quantum Logic Gates Realized in a Circuit QED System  
Appl. Math. Inf. Sci. Volume 13 > No. 5 (2019) PP: 839-846  
doi:10.18576/amis/130518  
  
T. Said, A. Chouikh, M. Bennai,  
Two-Step Scheme for Implementing N Two-Qubit Quantum Logic Gates Via Cavity QED  
Appl. Math. Inf. Sci. Volume 12, No. 4 (2018) PP: 699-704  
doi:10.18576/amis/120404  
Zidan, M., Abdel-Aty, A.-H., Younes, A., El-khayat, I., Abdel-Aty, M.  
A novel algorithm based on entanglement measurement for improving speed of quantum algorithms  
Applied Mathematics and Information Sciences, 2018, 12(1), pp. 265-269  
DOI: 10.18576/amis/120127  
  
Abdel-Aty, A.-H., Kadry, H., Zidan, M., Zanaty, E.A., Abdel-Aty, M.  
A quantum classification algorithm for classification incomplete patterns based on entanglement measure  
Journal of Intelligent and Fuzzy Systems, 2020, 38(3), pp. 2817-2822  
DOI: 10.3233/JIFS-179566  
  
3) More discussion should be added on the general workflow of the implemented methodology  
  
4) The quality of figure 3 should be improved  
  
5) Equation 11 should be fixed  
  
6) Figures 5 and 6 should be re-plotted in a better quality  
  
7) In the references list, the authors have to fix the errors where the term "" ??????" appears  
  
[7] Vapnik, V.N.: The Nature of Statistical Learning Theory. Springer, ???  
(2013)  
[8] Hastie, T., Tibshirani, R., Friedman, J.: The Elements of Statistical Learning: Data Mining, Inference, and Prediction, Second Edition.  
Springer Series in Statistics. Springer, ??? (2009)