Convergence chart of tested models on Phoneme dataset 0.76 0.74 0.72 **GBO-ANFIS** 0.70 **ARO-ANFIS RIME-ANFIS** Loss **QLE-SCA-ANFIS** 0.68 **AAEO-ANFIS SMA-ANFIS** 0.66 0.64 0.62 50 100 150 200 250 300 0 Epoch