Boxplot of ARL<sub>1</sub> for Various Models on Streaming Data with z and alpha: z:1.96 alpha:1.5, Mean Gap Size of 10 (Outliers in both\_in\_and\_out Period) CTM (Z:1.96, a:1.5, (0.15, 10)) (2:1.96, a:1.5, 30) CTM (2:1.96, 2:1.5, (0.1, 10)) CTM (2:1.96,8:1.5,(0.1.15)) CTM (Z:1.96, a:1.5, (0.1, 20)) WM (2:1.96, 2:1.5, (0.15, 20)) SWM (Z.1.96, a.1.5, 15) WM (Z:1.96,8:1.5,(0.1.15)) SWM (2.1.96, a.1.5,20) TM (Z:1.96,a:1.5,(0.1,20)) WM (2:1.96,8:1.5,(0.1,20)) WM (Z:1.96,a:1.5,(0.15, 10)) TM (Z:1.96,8:1.5,(0.15, 15)) WM (Z:1.96,8:1.5,(0.15, 15)) CTM (Z:1.96,a:1.5,(0.15, 15)) CTM (Z:1.96,a:1.5,(0.15,20)) TM (Z.1.96, 2:1.5, (0.2, 10)) WM (Z:1.96,8:1.5,(0.2, 10)) CTM (2:1.96,3:1.5,10.2,10)) TM (Z:1.96,a:1.5,10.2,201) WM (2:1.96,8:1.5,(0.1.10)) TM (Z:1.96,a:1.5,(0.1, 15)) TM (Z:1.96, 3:1.5, (0.15, 10)) TM (Z:1.96, 8:1, 5, (0.15, 20)) TM (Z:1.96,a:1.5,(0.2, 15)) CTM (Z:1.96,3:1.5,10.2,151)

Model (Parameters)

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 $ARL_1$