模型：ATCNet

数据集：对训练数据和测试数据分别取三类动作第一阶段trigger（11,12,13）向后取4000长度窗口得到两个90\*64\*4000数组

数据处理：加上8-30Hz滤波

参数设置：

model=ATCNet(n\_classes=3,in\_chans=X\_train.shape[2],in\_samples=X\_train.shape[3],n\_windows=5, attention='mha',eegn\_F1=16, eegn\_D=2, eegn\_kernelSize=64, eegn\_poolSize=16, eegn\_dropout=0.3,tcn\_depth=2,tcn\_kernelSize=4,tcn\_filters=32,tcn\_dropout=0.3,tcn\_activation='elu', fuse='average')

# 训练模型

history = model.fit(X\_train, y\_train, epochs=300, batch\_size=8, validation\_data=(X\_test, y\_test),

callbacks=[AccuracyHistory(), early\_stopping, reduce\_lr])

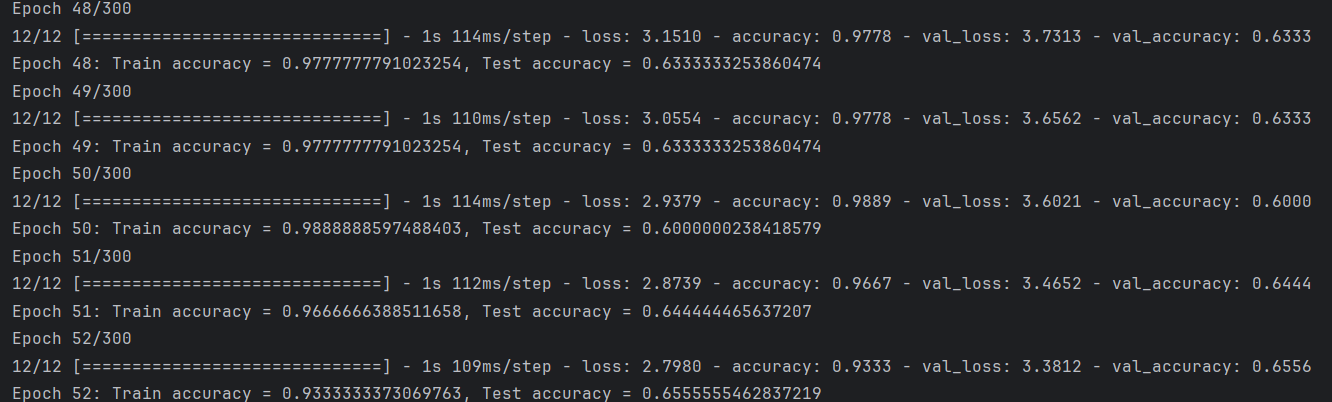
修改早停和自适应学习速率：

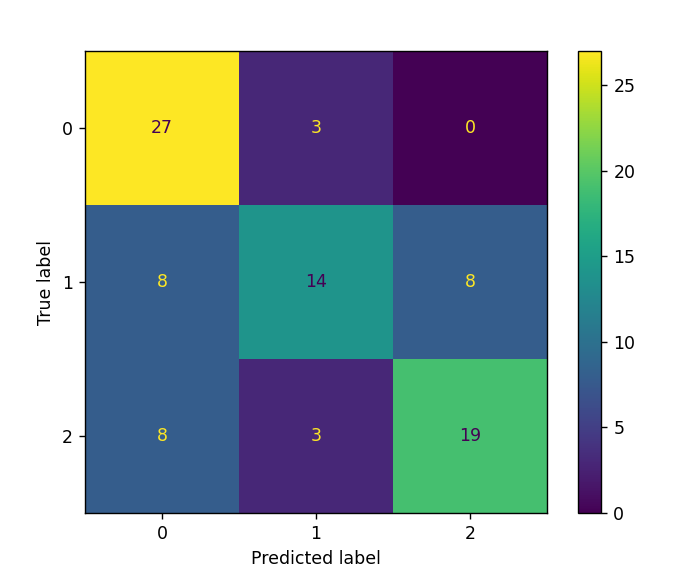
early\_stopping=EarlyStopping(monitor='val\_accuracy',patience=100,restore\_best\_weights=True)

reduce\_lr=ReduceLROnPlateau(monitor='val\_accuracy',factor=0.5,patience=50,min\_lr=1e-5)

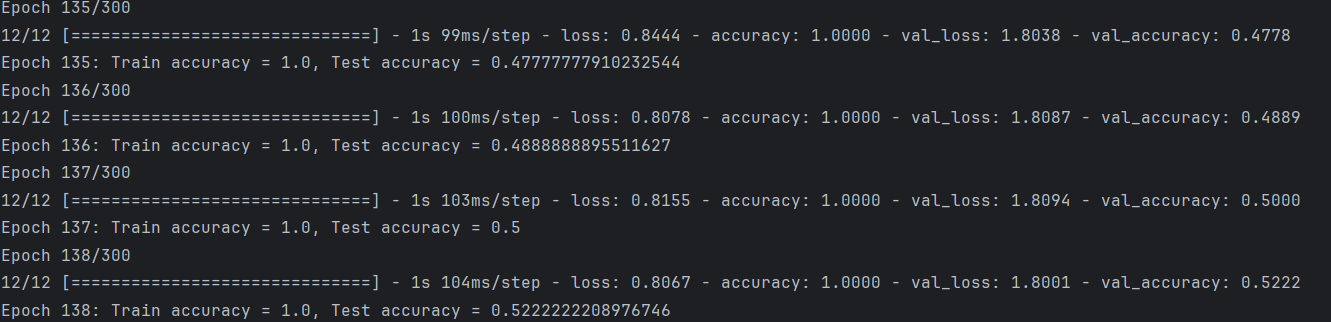
受试者：s1 4s

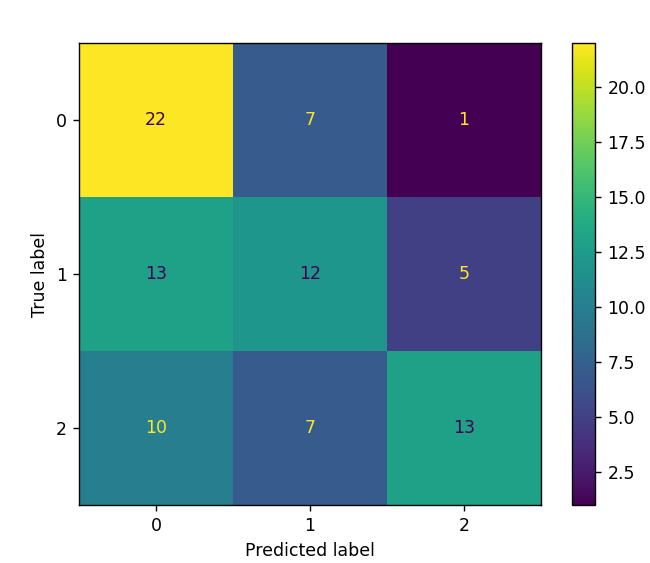
准确率:



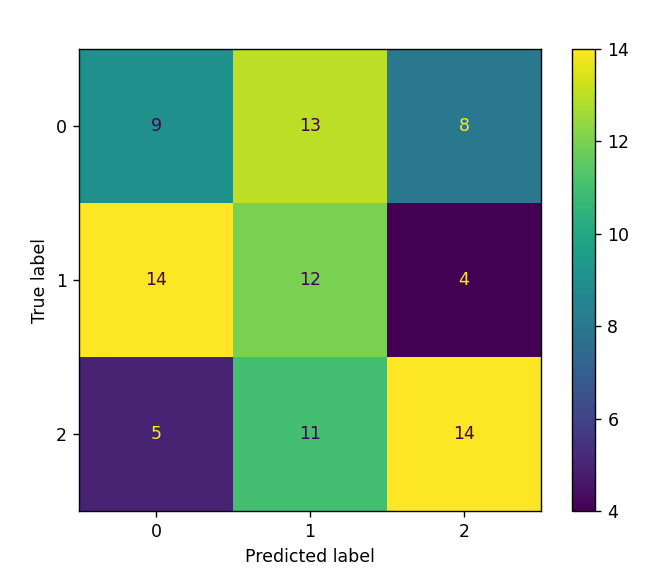


3s



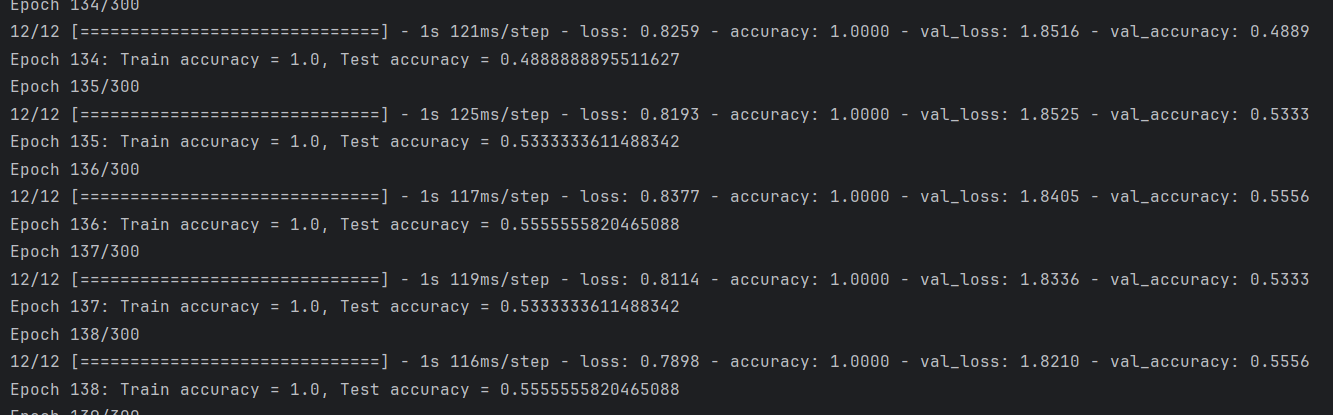


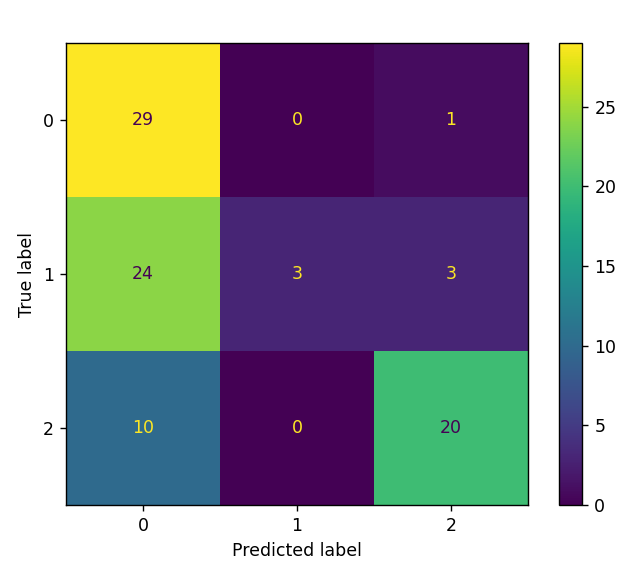
2s



受试者：s2

准确率：





受试者：s3

准确率：

