Speeding up TMVA with Multiprocessing Techniques

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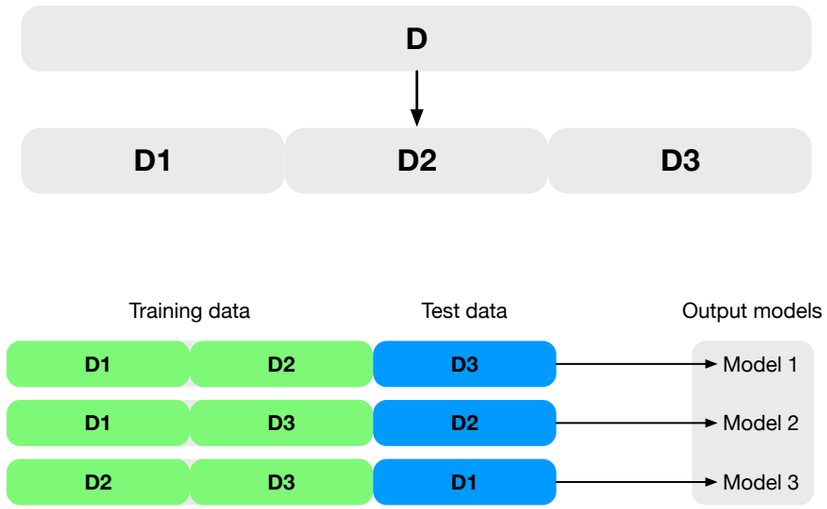
Introduction

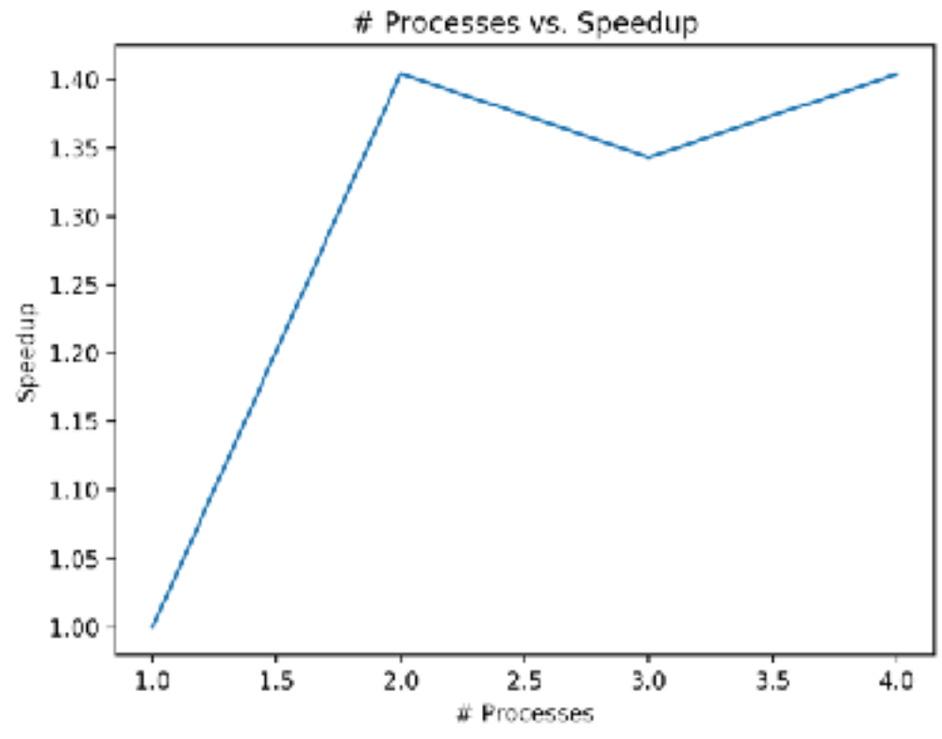
- Based on work by Mammad Hajili (Summer Student 2017)
- In CV, data is split into independent folds
- Uses ROOT::TProcessExecutor for each fold




```
for each method:
   for each fold:
      method.evaluate(fold)
```

Benchmark

- MacBook Intel Core i7 @ 3GHz, 8Gb RAM
- 6000 samples from 2d gaussian, 10-fold cv
- Method parameters chosen to take “some” time




```
cv.BookMethod(TMVA::Types::kBDT, "BDTG",
“!H:!V:NTrees=300:MinNodeSize=2.5%”
“:BoostType=Grad:NegWeightTreatment=Pray”
":Shrinkage=0.10:nCuts=20”
“:MaxDepth=6");
```

Issues

- Text output is mangled.