TICA

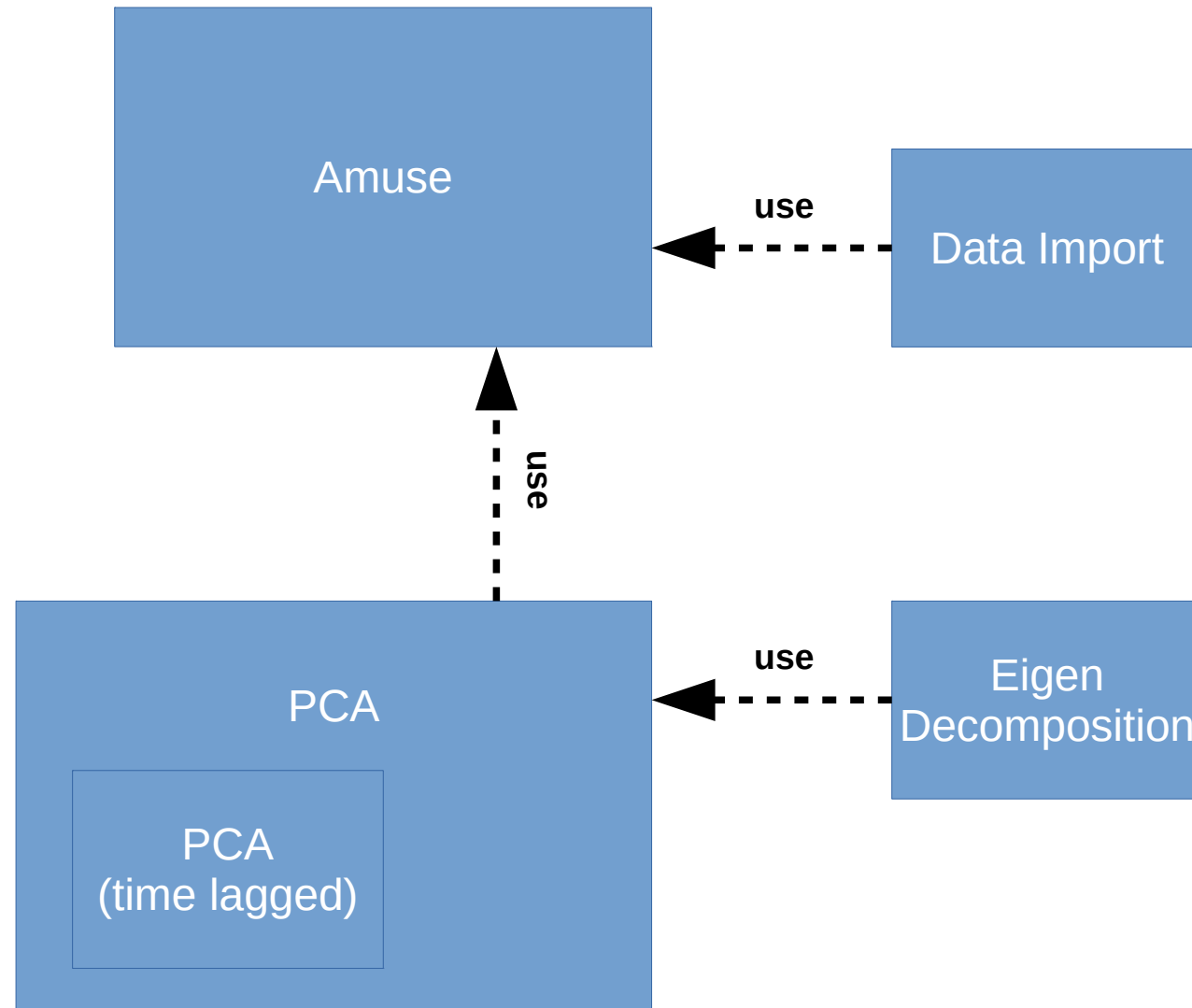## Roadmap/Division of Work

- Python implementation of TICA(Rick)

- Unittests(Joschka)

- Chunked version of Python TICA(Rick)

- C-Extension(Joschka, Rick)

- Documentation(Rick)
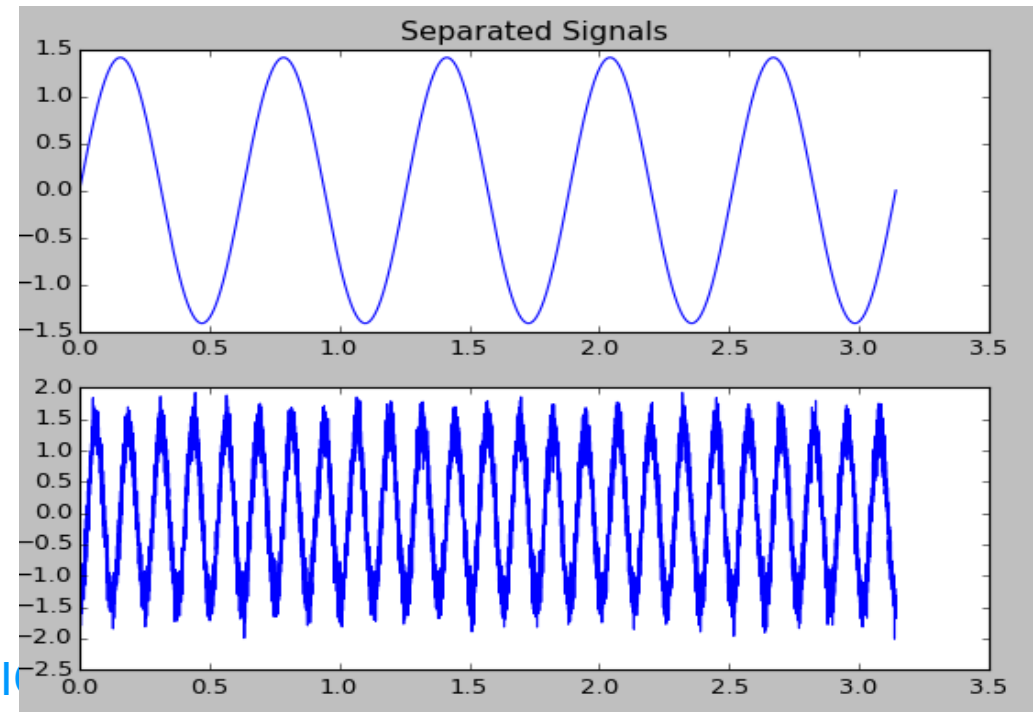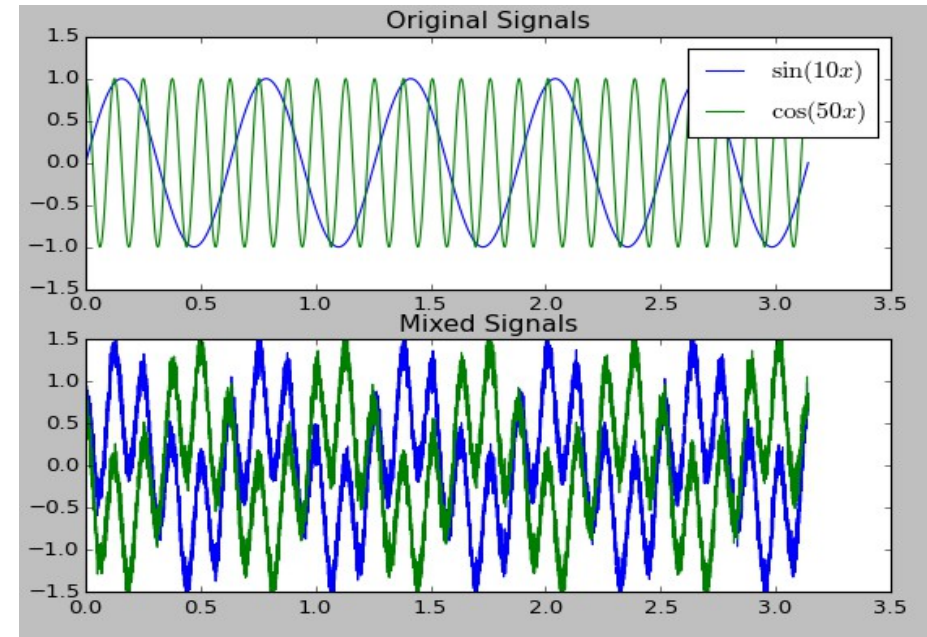
Python impl. of TICA

Unittest

```python
class TicaUnittest(unittest.TestCase):

    def testDataImport(self):
        self.assertEqual(TicaDataImport('C:\\Users\\Josch_000\\Downloads\\testDaten.csv').m_dat


    def testPrincipleComponents(self):
        self.assertEqual(blub.m_covMat.tolist(), covMatrix.tolist())
        self.assertEqual(blub.m_dataMeanFree.tolist(), covMatrix.tolist())
        #self.assertEqual(TicaPrinComp(asd.m_csvData).m_pc.tolist(), blub.m_data.tolist())
```

Chunked Version

- Is runing

- Same results like „normal" version

- But: no benefit for large data, because of memory problems

C-Extension/ Troubleshooting

- Is runing

- For 400MB dataset(50000x1000 data matrix) computing the covariance matrix needs 620sec.

- For the same dataset the python code needs 10 sec

- Windows troubleshooting