**TimsPy**: access timsTOF Pro data easily from Python

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- timsTOF Pro is a novel instrument by Bruker
- uses trapped ion mobility spectrometry (TIMS) coupled with liquid chromatography (LC) and mass spectrometry (MS)
- collected data is stored in vendor’s format accessible with freely available software development kit from many programming languages
- data dimensions include:
  - retention time (RT)
  - 1/K (inverse ion mobility IM)
  - mass/charge (MZ)
  - tof-index
  - scan number
  - frame number

**TimsPy** gives you simple access to this data, the way data-scientists love it:

```python
from timspy import TimsDIA
D = TimsDIA('path/to/data_folder.d')
D[frames, scans]  # select some frames and scans
```

Above, `frames` and `scans` can also be very general expressions, covering broad use-cases.

```python
D[1:1000, 0:918]  # and so on, until 1000th frame is reached
```

And if you want to directly use physical quantities in the query? We have you covered. Use:

```python
D.phys[RT, IM]  # or D.physIter[RT, IM]
```

We still experiment with usage of VAEX and HDF5 to optimize your daily experience with timsTOF data on your laptop. You don’t need a server or a supercomputer to study your data. Follow our [github](https://github.com) page!

- Give it a go now! It’s as simple as: pip install timspy