**Table 1** **- Median and mean FDR of publicly available spike-sorted electrophysiology datasets**.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Authors** | **Median FDR (± s.e.)** | **Mean FDR (± s.e.)** | **# Clusters** | **τc (ms)** | **Probe** | **Sorter** |
| Xu et al.  *Nature* (2022) | 3.1% (0.5) | 14.3% (0.4) | 3,046 | 0 | H2/H3  *Cam. Neuro.* | Kilosort |
| Economo et al.  *Nature* (2018) | 3.1% (0.6) | 12.5% (0.5) | 1,988 | 0.25 | H2  *Cam. Neuro.* | JRClust |
| Steinmetz et al.  *Nature* (2019)\* | 4.0% (0.2) | 25.1% (0.2) | 33,997 | 0 | Neuropixels 1.0 | Kilosort |
| Gao et al.  *Nature* (2018) | 4.4% (0.7) | 18.7% (0.6) | 1,923 | 0.5 | H2/A4  *Cam. Neuro.*  *NeuroNexus* | UltraMegaSort2000 |
| Li et al.  *Nature* (2016) | 4.5% (0.8) | 19.7% (0.7) | 1,543 | 0.85 | A4  *NeuroNexus* | UltraMegaSort2000 |
| Inagaki et al.  *Cell* (2022) | 6.2% (0.3) | 17.7% (0.3) | 7,968 | 0.25 | HH-2/Neuropixels 2.0  *Janelia/N.A.* | JRClust/Kilosort |
| Guo et al.  *Nature* (2017) | 6.5% (0.7) | 18.8% (0.6) | 1,936 | 0.85 | A4/A2  *NeuroNexus*  *Janelia* | UltraMegaSort2000 |
| Finkelstein et al.  *Nat. Neuro.* (2021)\* | 10.5% (0.5) | 20.1% (0.4) | 3,385 | 0.25 | H2  *Cam. Neuro.* | JRClust |
| Sylwestrak et al.  *Cell* (2022) | 12.8% (0.4) | 29.1% (0.3) | 10,548 | 0.25 | Neuropixels 2.0 | Kilosort |
| Stringer et al.  *Science* (2019)✝ | 21.9% (0.5) | 33.1% (0.4) | 6,446 | 0 | Neuropixels 1.0 | Kilosort |
| Chinta & Pluta  *Nat. Comm.* (2023) | 28.2% (1.3) | 36.2% (1.0) | 991 | 0 | NeuroNexus | Kilosort |
| Juavinett et al.  *eLife* (2019)\*✝ | 50.0% (0.8) | 44.3% (0.7) | 2,018 | 0 | Neuropixels 1.0 | Kilosort |

\* Clusters labeled “multi” or “MUA” excluded

✝ Calculated using homogeneous equation (**Eq. 9**)