```
\begin{array}{l} x_i = \\ [x_i^1, x_i^2, ..., x_i^N] x_i^j \end{array}
                                                                     P = \frac{\sum_i \|x_i^1, x_i^2, ..., x_i^{T_{p0}}\|_2}{\sum_i \|x_i\|_2}
(1)
T_{p0} \\ T_{p0} \\ T_{p0} \\ ?? \\ F = \\ \{F^{1}, F^{2}, \dots, F^{10}\}F^{i} \in \\ R^{N_{c} \times S_{b}} N_{c} S_{b} F^{i} C \in \\ R^{N_{c} \times N_{c}} ?? \\ CV = \frac{\sigma}{\mu}
T^{i}CV \in \\ CV??N_{c}
                                                                     \sigma \sigma \mu \sigma \mu F^i CV \in R^{N_c \times N_c} CCV ??N_c \times i_{th} J_{th} CV i_{th} j_{th} \sigma V i_{th} \sigma V 
                                                                                                           S_b
                                                                       a. Preprocessing
                                                                       Discrete
                                                                       Co-
                                                                      sine
                                                                         Trans-
                                                                      for-
                                                                      ma-
                                                                      tionD-
                                                                      CT-
                                                                      spike
                                                                      firingDCTHigh-
                                                                       Amplitude-
                                                                       Component, HACLow-
                                                                       Amplitude-
                                                                       Component, LACHACLFPLAC
                                                                     firing rate \[?]\] LFPspikeLFPspikeHACLACDCT1 bit \[?]\]
                                                                                                           l_i
                                                                      symbol(l_i) = \begin{cases} -1, -T_{LH} < l_i \leq 0 \\ 1, 0 < l_i < T_{LH} \end{cases}
                                                (3)
                                                                                                           T_{LH}??S_lS_l
                                                                     S_b \\ QT \in \\ R^{N_c \times S_b} N_c S_b H_c^Q
                                                                     H_c^Q = round(H_c./QT(c,:)),
                                                                                                           round(x)H_cT_{LH}QT(c,:
                                                              T_{LH}
T_{LH}?
\frac{1}{2}T_{LH}??
BBBBB
                                                                                                               \begin{bmatrix} -Z, Z \end{bmatrix} ZBBB B \\ [-Z, Z] BN_c ??? B??
                                                                                                             k_z k_z =
                                                                      (8A+
B)×
8+
CA
B
CHC-
T
                                                                         \begin{cases} 1, k_z \in [0, 7] \\ 2, k_z \in [8, 7 \times 8 + 7] \\ 3, k_z \in [8, 7 \times 8 + 7] \end{cases}
```