

The diagram illustrates the process of converting a single experiment into a spike train. A large blue arrow points from the 'single experiment' plot to the 'spike train' plot.

**single experiment**

The 'single experiment' plot shows 'Reaction Intensity' (Y-axis, 0 to 3,500,000) versus 'Frame Number' (X-axis, 74 to 23861). The plot is titled '9mm 0.002pN'. The data is recorded every 50 milliseconds. A prominent peak is visible around frame 14135.

**spike train**

The 'spike train' plot shows a binary signal (0 or 1) versus 'Time In Seconds' (X-axis, 0 to 295.65). The plot is titled 'Spikes per second: 20'. The signal consists of a series of spikes (1) and non-spikes (0) over time.

The diagram illustrates a four-layer neural network architecture. A large blue arrow on the left points into the first layer, labeled "spike input layer", which contains a single blue circular node. This layer is fully connected to the second layer, labeled "leaky integrate and fire layer", which contains three blue circular nodes. The second layer is also fully connected to the third layer, labeled "leaky integrate and fire layer", which contains three blue circular nodes. Finally, the third layer is fully connected to the fourth layer, labeled "classification layer", which contains three blue circular nodes. The entire network is enclosed in a dashed blue border.