$$p \equiv (x_0, \ldots, x_n) \tag{1}$$

$$L = \sum_{i=0}^{n-1} \|x_i - x_{i-1}\| \tag{2}$$

$$H(p) = \frac{\log(\frac{L(p)}{d(p)})}{\log(n-1)} \cdot d_\theta(p) \tag{3}$$

Where $d(p)$ is the diameter of the minimum circle encompassing the trajectory; $d_\theta(p)$ is the scaled version of $d(p)$ so that the range of $d_\theta(\cdot)$ value across the set of trackers, $\{d_\theta(x), \forall x \in \theta\}$, is $[0, 1]$; and $L(p)$ is defined as the length of the trajectory.

$$a = (\theta, D) \tag{4}$$

$$d(p, q) = \sum_{i=0}^{n} \|a_{p,i}, a_{q,i}\| \tag{5}$$

$$D(p) = \frac{1}{\Phi(p)} \sum_{\forall q \in \Phi(p)} d(p, q) \tag{6}$$

where D is the distance between the current and the previous point and θ is the absolute value of the angle between the line formed between the two points and the x-axis. $\Phi(p)$ represents the set of trackers composing the neighbourhood of p. The neighbours are the 4 immediate neighbours.

$$F(p) = H_\theta(p) \cdot D_\theta(p) \tag{7}$$

The $H_\theta(p)$ and $D_\theta(p)$ are the normalized version of $H_(p)$ and $D_(p)$ respectively. The normalization procedure is the same as defined above.