## 1 Proof of the U. R. Mum Theorem

We aim to prove the relationship represented by the equation:

$$WC = \frac{T}{I} \times \frac{e^{\sigma}}{1 + e^{\sigma}}$$

where:

WC: \$wag coefficient

 $T: {\bf Tempo}$  (beats per minute)

I: Inconsistency in rhythm

 $\sigma$ : Variety of footwork

## **Proof:**

Let us consider the essence of tap dance, where the soulful rhythm and syncopated beats intertwine to create the magic of movement.

The \$wag coefficient, denoted by WC, embodies the finesse of a tap dancer. It is a function of both the tempo T and the inconsistency I in their rhythm, combined with the diverse and vibrant footwork denoted by  $\sigma$ .

To elaborate, when the tempo T is high and the inconsistency I is low, the dancer's \$wag coefficient tends to increase linearly, expressing a smoother and more refined motion on the dance floor.

Moreover, the term  $\frac{e^{\sigma}}{1+e^{\sigma}}$  encapsulates the richness of footwork variations  $\sigma$  contributing to the dancer's style. As the variety in footwork amplifies, the overall \$\sqrt{a}\$ wag coefficient experiences a dynamic shift, augmenting the dancer's swagger and charisma.

Hence, by combining these elements in the proposed formula, we have successfully captured the intricate essence of tap dance within the \$wag coefficient equation.

Q.E.D.