

Jet Classify with More Interaction Particle Transformer

Saturday, 13 July 2024 09:45 (25 minutes)

We propose a new jet tagging method based on Transformer architecture called More Interaction Particle Transformer (miParT). This method improves upon the ParT algorithm by modifying the attention mechanism and increasing the embedding dimension of the pairwise particle interaction input, all while reducing the total number of parameters and computational complexity. We tested miParT on two ubiquitous jet tagging benchmarks and found that it achieved significant improvements over existing methods.

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Session Classification: 人工智能和机器学习的应用

Track Classification: 人工智能和机器学习的应用