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## **【357】 Leveraging transformers and RL to identify key b-hadron backgrounds**

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Experimental measurements of b-hadron decays encounter a broad spectrum of backgrounds due to the numerous possible decay channels with similar final states. Additionally, computational limitations necessitate simulating only the most significant backgrounds. Identifying the leading backgrounds requires a careful analysis of the final state particles, potential misidentifications and kinematic overlaps. This talk introduces an innovative approach utilizing transformer networks and reinforcement learning to determine the critical backgrounds impacting measurements of b-hadron decays.

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