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Approval

Title: A study of hadron -hadron interactions at very high energies

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كلية التربية
قسم الفيزياء

صفحة العنوان

دراسة تفاعلات الهادرونات مع بعضها عند الطاقات العالية

اسم الطالبة : دعاء محمود حبشي

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Summary

In this work, a theoretical treatment for studying the interaction of Hadrons with each other in the high energies in the framework of two models. First model, the parton two fireball model(PTFM) based on the impact parameter analysis which depend on the overlapping volume in collision . Second model, the artificial intelligence (AI) which contains the model of the neural networks for simulation these interactions and also prediction the collision of experiments that have not been made yet with describing them by mathematical function obtained from this model.

In the first and second chapters we showed the international scientific experiments of the collisions of the positive and negative pions and also the positive and negative kions each with the protons at different energies. Also, we showed the different theoretical models which can be applied on these interactions with a brief explanation of the bases of these models.

The results in the last three chapters in the dissertation are summarized as follows:

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