**Effect of nonthermal trapped ions on dust acoustic soliton energy in a dusty plasma**

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In addition to their existence in low-temperature plasmas, dust particles dust are found, next to the plasma, in several regions of the space, namely, the interstellar medium, the ionosphere, the magnetosphere, the planetary rings...etc. That’s why the dusty plasma has become an important subject of research activity to explore in the field of plasma physics. In the present investigation, we analyze the role that both nonthermality and trapped can play on the energy carried by the DA soliton. We will see that the nonthermal ions trapping affect sensibly the quantity of energy transported by dust acoustic soliton.