

# **Particle-in-Cell Simulations of Synchrotron Maser Emission and Associated Particle Acceleration in Relativistic Shocks**

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## **What is this contribution about?**

The efficient particle acceleration in ion-electron relativistic shocks.

## **Why is it relevant / interesting?**

Because high-energy cosmic rays may be generated by it.

## **What have we done?**

We have analytically elucidated the acceleration mechanism.

## **What is the result?**

Theoretical estimate of the maximum attainable energy