NU Tech
Technology Partnership of Nagoya University, Inc.

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# Novel Method to Analyze Motions of Electrically Charged Particles in Magnetic Fields

## Background

To analyze the motion of electrically charged particles, the “Boris push” has been widely used. However, it has been pointed out that the Boris method generates less precise results and takes a longer time to analyze.

## Technology Overview

Nagoya University researchers have designed a novel way to analyze motions of electrically charged particles by Lorentz force. The new method leads to more precise results in a shorter time than the conventional Boris method.

## Applications

Plasma simulation in upper atmosphere
Analysis of the effect of cosmic plasma to space shuttle or satellite
Cosmic weather forecast

## Further Details

An academic article with the new equation and scheme has been submitted. It has not published yet.

## Seeking

Licensing

## IP Status

Patent application submitted

## Contact

Rena Shimizu, Ph.D., TEL: 919-535-8724 Email: rshimizu@tpnu.org
Technology Partnership of Nagoya University, Inc.
One Copley Parkway, Suite 305, Morrisville, NC 27560

名古屋大学
NAGOYA UNIVERSITY