Realization of Common Platform Technology, Facilities, and Equipment that creates Innovative Knowledge and Products

Comprehensive R&D Platform for Topological Data Analysis

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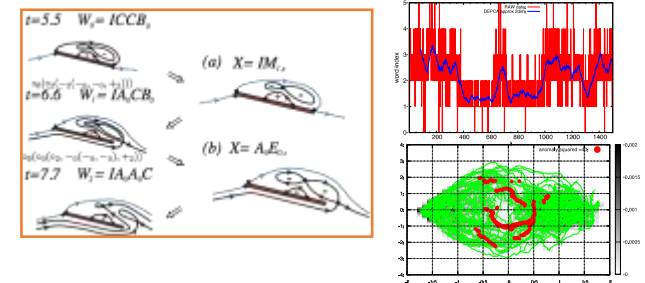
Summary :

Topological Data Analysis (TDA) enables us to extract global and multi-scale information from data that conventional data analysis cannot capture. In spite of this advantage, we still have a difficulty in applying this methodology to a large amount of data in various fields of sciences such as medical science, life science, environmental science, material science and the other data in industries. Also, there are big theoretical challenges to construct mathematical models using those topological data.

In our R&D project, we shall create comprehensive R&D platform consisting of two methods of topological data analysis, **Topological Flow Data (TFD) Analysis** for dynamic flow vectors and **Persistent Homology (PH) Analysis** for shapes in order to support the realization of new future society.

"Topological Data Analysis for Future Society " is our project's slogan.

R&D Platform for TDA

TFD Analysis = "Shapes of Flows"

PH Analysis = "Shapes of Data"