

2016학년도 2학기

수학전공 Colloquium

제 목

Research on the human biological phenomena using the Immersed Boundary Method

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초 록

There are many biological phenomena based on the fluid dynamic in the body and understanding their behavior in motion is important.

In this talk, we will present some numerical simulations with moving boundaries in bio-fluid dynamics using the immersed boundary (IB) method.

The IB method is very useful to investigate problem of fluid-structure interaction type with a viscous incompressible fluid.

Our computational models are as follows: circulatory system (0D) with beating heart (2D), glioma invasion in the brain (2D), and swimming motion of E. coli (3D).

Finally, we will present the problems that can occur when using the IB method and discuss the future challenging works.

일 시

10월 27일 목요일 5시

장 소

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