

Short Lecture in Applied Mathematics : Water Wave Modelling and Its Application

Mathematics has been admitted by industries as a tool that can solve various real life problems. Some industries have to deal with water wave phenomena in their activities. Fortunately, the water wave propagation can be modeled by mathematical method. In Indonesia, after Mr. Joko Widodo become the president of Indonesia with his program of 'Tol Laut', many harbors are planned to be built in the incoming years. Several aspects should be considered in designing the harbor. The harbor should be constructed in such a way so that it can be prevented from high waves which can disrupt the activities around the harbor. In the sake of efficiency, the design has to be tested for various types of waves. This makes the water wave modelling and simulation play an important role. The aim of this lecture is to give an overview for students (Math, Physics, or related fields) the application of water wave modelling to solve some real problems provided by industries.

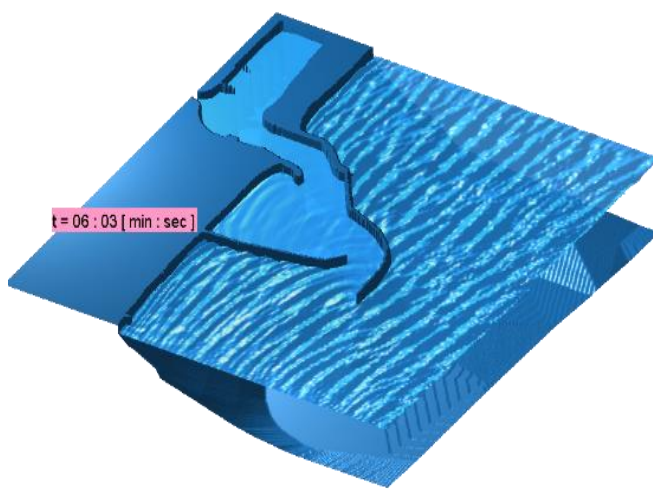


Figure 1. Wave simulation in Cilacap harbor

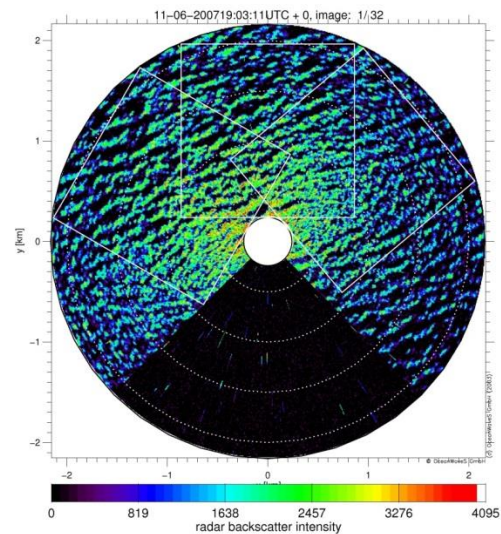


Figure 2. Wave observation, by a radar, as an input to predict wave elevation

Place : Unpar FTIS building R9121

Date : Friday, 17 April 2015

Time : 10.30-12.00

Lecturer : Dr. Didit Adytia and Andreas Parama Wijaya, M.Si.

Registration : email to fiptihin@yahoo.com (for non-Math student)

- Dr. Didit Adytia is a Postdoctoral researcher in Applied Analysis (AA) group in Department of Mathematics at University of Twente, Netherlands. He is also the head of Next-Ocean Indonesia, under LabMath-Indonesia, that provides consultancy services in coastal engineering, especially for modeling & simulation of water waves and metocean services.
- Andreas Parama Wijaya, M.Si. is a PhD student in Department of Mathematics at University of Twente, Netherlands. He is also the head of laboratory in LabMath-Indonesia.

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