

9 November 2012

Department of Civil Engineering
2012 Autumn Semester
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Water Quality Dynamics

Outline #4: Diffusion

1. Report of the last exercise
 - Presentation (Lauri, Shiena)
 - Discussion
 2. Advection Equation (Review)
 - Plug flow system
 3. Diffusion Processes
 - Fick's law
 4. Advection-Dispersion Equation
 5. Example of 1-D Advection and Dispersion Process
 6. General Application Procedure of Water Quality Model
 7. Difference Method
 - Finite difference / Finite element
 - Taylor expansion
 - Difference scheme
 8. Exercise (Ex4-1 to Ex4-5)
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