

A mathematical model for the spread of oil spills in high seas

Title	A mathematical model for the spread of oil spills in high seas
Author Order	1 of 3
Accreditation	3
Abstract	This study aims to model the distribution pattern of oil spills in high seas with the influence of wind movements. The mathematical model is derived from the random walk process of the oil spill particles by using a probability measure on a unit circle with the help of Laplace and Fourier transform . The solution to the model is also obtained by using Laplace and the Fourier transform. Based on the analysis of the solution of the model, the oil spill tends to spread in the direction of wind movement.. The speed and direction of the wind movement affect the speed and direction of the spread of the oil spill particles. The larger the speed of wind movement, the faster the oil particles movement.
Publisher Name	Universitas Ahmad Dahlan
Publish Date	2021-03-24
Publish Year	2021
Doi	DOI: 10.12928/bamme.v1i1.3877
Citation	
Source	Bulletin of Applied Mathematics and Mathematics Education
Source Issue	Vol. 1 No. 1 (2021)
Source Page	9-20
Url	http://journal2.uad.ac.id/index.php/BAMME/article/view/3877/pdf
Author	BAMBANG HENDRIYA GUSWANTO, S.Si, M.Si, Ph.D