Preface

Predicting natural disasters is extremely important in mitigating disaster related destructions. In most scenarios, it is equally difficult to predict such events due to the multitude of factors which affect the formation, propagation and spread of natural disasters.

This book specifically focuses on predicting the mean first passage time to reach a known trigger state for natural disasters modelled as dynamic random processes. An engineering perspective is followed to describe the prediction methods that particularly look at random processes which govern natural disaster dynamics that shows directional dependence and spatial inhomogeneity. Several applications are referred throughout the book including flood, cyclone and fire predictions.

Some of the material presented here can also be found in the following research publications:


Melbourne Isuri Wijesundera
February 2016
References

Natural Disasters, When Will They Reach Me?
Wijesundera, I.; Halgamuge, M.N.; Nanayakkara, T.;
Nirmalathas, T.
2016, XVIII, 128 p. 46 illus., 37 illus. in color., Hardcover