

CoE-MaSS weekly seminar series

THE DST-NRF CENTRE OF EXCELLENCE IN MATHEMATICAL AND
STATISTICAL SCIENCES (CoE-MaSS) WOULD LIKE TO PRESENT
A SEMINAR BY

Dr Alta De Waal

(Department of Statistics, University of Pretoria)

“Predictive modelling for rhino anti-poaching operations”

Friday, 22 April 2016
10h30-11h30



Broadcast live from:

Videoconferencing Facility, 1st Floor
Mathematical Sciences Building, Wits West Campus

How to connect to this seminar remotely:

You can connect remotely via Vidyo to this research seminar by clicking on this link:
<http://wits-vc.tenet.ac.za/flex.html?roomdirect.html&key=y0SSOwFsvsidbzig4qFdWXvvQtyl>
and downloading the Vidyo software before the seminar.

You must please join in the virtual venue (called “CoE Seminar Room (Wits)” on Vidyo)
strictly between **10h00-10h15**. No latecomers will be added.

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Once the seminar commences, please mute your own microphone so that there is no feedback from your side into the virtual room. During the Q&A slot you can then unmute your microphone if you have a question to ask the speaker.

Title:

Predictive modelling for rhino anti-poaching operations.

Presenter:

Dr Alta De Waal, Department of Statistics, University of Pretoria, Johannesburg, South Africa; alta.dewaal@up.ac.za

Abstract:

Rhino poaching in South Africa is leading to a catastrophic reduction in the rhino population. A Bayesian network causal model is proposed to model the underlying (causal) relationships that lead to rhino poaching events. The model may be used to fuse a collection of heterogeneous information sources. If a game reserve is partitioned into several geographical areas or cells, the model may perform inference for each of these cells separately, and give a relative predictive distribution of poaching events over the game reserve. Several data sources are used to construct the model. Expert knowledge is used to parameterise the model as well as data based on historical poaching events. In this presentation we discuss the outcomes of the two models and present an evaluation framework for the model.