Rhino crisis: maths to the rescue

LEE RONDGANGER

SOME of the world's leading mathematicians will travel to South Africa next week to try come up with a mathematical equation that might help authorities fight the bloody scourge of rhino poaching.

Mathematicians from the UK, Russia, India and Australia, with their South African counterparts, will converge at Wits University in Johannesburg on Monday for a five-day Mathematics in Industry Study Group workshop.

The study groups, which have been held in various countries for more than 40 years, meet annually to solve various social problems using maths.

This year they will work with rhino role-players to come up with mathematical solutions to the increasing threat to South Africa's rhino population, focusing on white rhinos. At previous workshops held in South Africa, the study group investigated rock bursts, optimisation in mining, traffic flow, HIV in the workplace, optimal distribution of goods, renewable energy, robot motion and image processing.

The workshop will take place against the backdrop of the relentless rhino carnage, with SA National Parks reporting yesterday that the three rhinos had been killed in Kruger National Park since the beginning of the year.

Professor Montaz Ali, of the applied mathematics department at Wits University and one of the organisers of the workshop, said this year's task of solving the rhino problem will be no easy feat.

"There would be various scenarios that we will have to look at when trying to come to a mathematical solution, such as what is the job of the rangers, what is the responsibility of the government, rhino breeding and loss of rhino and what scientific method can be used efficiently.

"We will put all these scenarios in a model with the hope of solving a mathematical problem," said the professor.

Ali said the mathematicians would take into account the population of South Africa's white rhinos, the supply and demand for rhino horn and the steps being taken to prevent poaching.

Other factors that will be considered will be the costs of managing wild rhino populations and the argument for re-establishing a legal trade.

Ali said each scenario would be given a mathematical equation from which mathematicians could begin working out a possible solution. "Once we have a solution we