

Pianos, pasta and lollies: the maths of the good life

May 14 2008

CSIRO mathematician Dr Bob Anderssen knows a thing or two about the good life. He does the maths that makes it good.

Dr Anderssen has used mathematics to improve the drying process of pasta and reduce wastage.

His research has used his knowledge of vibrating strings to improve our understanding of the sound produced by the Stuart & Sons piano manufactured in Newcastle, New South Wales by Piano Australia.

And he has worked on the equations that describe wheat-flour dough rheology — the elastic flow and deformation of dough — to improve the efficiency of mixing wheat-flour dough to make bread and to derive molecular information for the more efficient breeding of new varieties of wheat.

Now, 41 years after being awarded a PhD, Dr Anderssen has received his second doctorate, an honorary Doctor of Science, at La Trobe University in Bendigo.

Dr Anderssen says maths has taken him into areas few people could imagine maths had anything to do with.

“The importance of mathematics is not always obvious,” he said.

“Mathematical approaches, like breaking complex problems down into

several simpler ones, can help solve all kinds of problems in a whole range of different areas.”

His recent work deals with pattern formation in plants and its role in genetics and agriculture.

In his speech at La Trobe University to fellow graduates, Dr Anderssen told of the difficulty of mathematically modelling industrial ‘collars’ used to seal lollies into bags without tearing them.

Dr Anderssen is now a Post-Retirement Research Fellow at CSIRO Mathematical and Information Sciences where he has worked for many years.

He grew up in country Queensland going to school in Brisbane, Bundaberg, Maryborough and Charters Towers, before heading off to the University of Queensland. After a BSc (Hons) and an MSc, Dr Anderssen earned a PhD in Mathematics from the University of Adelaide.

Dr Anderssen’s work illustrates the breadth of applied mathematics. His work has been published in research journals on agriculture, cereal science, mathematics, even brewing.

Source: CSIRO

Citation: Pianos, pasta and lollies: the maths of the good life (2008, May 14) retrieved 27 April 2024 from <https://phys.org/news/2008-05-pianos-pasta-lollies-maths-good.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is

provided for information purposes only.