

## 23-28 July 2017

# 18<sup>th</sup> International Conference on the Teaching of Mathematical **Modelling and Applications**

## **Mathematical Modelling** and Sense Making

## 1<sup>st</sup> Announcement October 2016

www.ictma18.co.za



sponsored by Sanlam





## **Key dates**

2

## 31 October 2016

- 1st announcement
- Call for contributions

## **17 November 2016**

• Registration opens

## 17 February 2017

Deadline for contributions

## 31 March 2017

• Notification of proposal outcomes

## 17 April 2017

• Early bird registration closes

### 17 June 2017

• Conference Programme published

## 23 July 2017

Conference starts

### 29 July 2017

Teacher Day •

### 15 September 2017

Deadline for contributions for the next book in the ICTMA series •









## Index

3

1.	Welcome to ICTMA-18	4
2.	Local Organising Committee	5
3.	Venue	5
4.	Aim of the conference	6
5.	Conference theme	6
6.	Scientific programme	7
7.	Plenary speakers	8
8.	Call for contributions	8
9.	Social programme and accommodation	11
10.	About ICTMA	11
11.	Conference fee	13
12.	Sponsorship & Exhibition	13
13.	Important information	15
14.	Contact	25
15.	Mathematical Modelling Teacher Day	25



sponsored by 😵 Sanlam supported by



## 1. Welcome to ICTMA-18

The Research Unit for Mathematics Education (RUMEUS) at Stellenbosch University in South Africa invites you to the 18th International Conference on the Teaching of Mathematical Modelling and Applications (ICTMA-18) in July 2017. RUMEUS has a long history of work done in Primary Schools with young children, developing their numeracy skills in a spontaneous way. The researchers Piet Human, Alwyn Olivier and Hanlie Murray developed and used the problem-centred learning approach in their research over many years. They also took the lead together with two other universities in the Western Cape in developing the MALATI-project, aimed at providing alternative teaching material for secondary school learners. The present members of RUMEUS and the Stellenbosch University Centre for Pedagogy (SUNCEP) continue the legacy of the problem-centred approach in their teaching and learning of mathematics at all school phases.

4



**UNIVERSITEIT STELLENBOSCH UNIVERSITY** 

Stellenbosch University

This biennial conference of ICTMA-18 attracts a vibrant group of Mathematics Education academics from around the world to share research experiences in the important area of mathematical modelling and applications.

Invited are experts in the field as well as young researchers interested in research on the teaching of applications and modelling in all areas of mathematics education - primary through secondary schools, as well as colleges and universities, and the world of work.







## 2. Local Organising Committee

Dr Helena Wessels Chair



Dr Faaiz Gierdien

Prof Dirk Wessels Co-chair



Dr Erna Lampen

Prof Mdu Ndlovu



Mr Cerenus Pfeiffer





3. Venue

**Location:** The conference will take place at the SANLAM Training Centre, 2 Strand Rd in Bellville, Cape Town.





## 4. Aim of the conference

The aim of the conference is to provide a forum for the presentation of research and exchange of information, experiences, and ideas relating to the teaching, learning and assessment of mathematical modelling, mathematical models and applications of mathematics at primary, secondary and tertiary level as well as in the world of work.

6

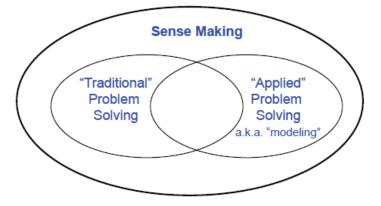
Research on the following issues will be addressed through a variety of activities:

- Pedagogical issues, such as the understanding of modelling, promotion of • modelling competencies, cognitive aspects;
- Assessment of modelling activities in school and universities;
- Connections to industrial or commercial practice, mathematics in the workplace;
- Influences of technology;
- Cross-cultural aspects and international studies

### 5. Conference Theme

"The real challenge we face is to support sense making in our classrooms" Alan Schoenfeld (2013)

Research about sense-making in mathematics teaching and learning spans many fields, and generally making sense of mathematics is equated with the solve ability to problems. Modelling as a perspective on mathematic education addresses problem-solving from a variety



of definitions too. We therefore wish to encourage conference contributions that might address the following or other appropriate issues.

#### **Research perspectives**

There are already a wide range of different approaches to research with respect to mathematical modelling and applications. These are drawn from a wide range of different research cultures and paradigms. In focusing on modelling and sense making there is an opportunity to consider what we might learn from the different approaches and what they have to offer to researching and understanding teaching, learning and application.



sponsored by 🔗 Sanlam supported by



#### Modelling and applications in school/college

Understanding sense making in the interaction of teaching and learning in 'classrooms' provides significant challenges. Over many years the mathematics education research community has made significant progress in coming to understand learner development of mathematical concepts whereas our understanding of learner development of modelling competencies is less well informed. At the same time, we have only just begun to examine the complexities encountered in effective teaching of modelling and applications for sense making in compulsory school settings.

#### Modelling in STEM

Mathematical models and modelling underpin much work across the science, technology and engineering disciplines (with mathematics often referred to as underpinning the STEM disciplines). In mathematics education we need to understand the perspectives that these other disciplines have of mathematical modelling, and what is important and effective in supporting and connecting them. There is much to be learnt from interdisciplinary work in which mathematical modelling plays a central role: further research in this area will provide new and important insights.

### Modelling in the world of work

In the workplace mathematical modelling and applications underpin much activity – although not always explicitly to all involved. There is increasing interest and a growing body of research within this important area. This has the potential to provide insight into what we know, what we need to learn, the implications for education and what we might learn about research methodologies.

#### Understanding the world of data and uncertainty

The advances in technology over the last 20 years have dramatically altered the terrain of modelling in the fields of statistics and probability. New tools are now available for students to explore and develop the kinds of stochastic models that are of increasing importance in science, engineering, economics, and other fields. Research in this area might inform new modes of education with the new technological tools that are increasingly available.

## 6. Scientific programme

The conference programme will include

- Plenary lectures followed by reactions of invited experts in the field
- Discussion Forums by invited experts on modelling perspectives around the world
- Plenary panel of invited experts on modelling perspectives around the world



sponsored by 🔗 Sanlam





- Paper presentations
- Symposia and workshops
- Posters

## 7. Plenary speakers

#### **Prof Alan Schoenfeld** University of California Berkeley



**Prof Cyril Julie** University of the Western Cape Cape Town



## 8. Call for contributions

Deadline for abstract proposals is 17 February 2017. The aim of the ICTMA conference is to provide a forum for the presentation and exchange of knowledge, experiences, and ideas relating to the teaching, learning and assessment of mathematical modelling, mathematical models and applications of mathematics at primary, secondary and tertiary level. The conference programme, following the usual ICTMA tradition, will include opportunities to present your work in the field of modelling and applications.









#### **Prof Gloria Stillman**

Australian Catholic University, Melbourne



**Dr Piera Biccard** University of South Africa Pretoria





The organising committee seek proposals for individual presentations as posters, papers, symposia, and workshops. Proposals for alternative modes of contribution are welcome.

#### Next book in ICTMA Series

The conference does not publish proceedings, but authors can submit a proposed chapter for consideration for publication in an edited volume after the conference. Instructions for authors will be available on the ICTMA website. Contributions are required to be submitted after the conference by 15th September 2017. The book chapters are fully reviewed by international expert referees. Not all submissions will pass successfully through this rigorous reviewing process. Books in the ICTMA series are published In the Springer Series, International Perspectives on the Teaching and Learning of Mathematical Modelling (Series Editors: Gabriele Kaiser and Gloria Stillman).



#### **Contribution formats**

All proposals to contribute to the conference should be made by submitting an abstract.

Authors that need early acceptance because of protracted approval processes need to send their abstracts as soon as possible for early notification of acceptance.

#### Paper Presentations

Paper presentations may be primarily research or theory driven. The paper should give an overview of the intentions of the presentation and should have a clear focus on modelling or applications. It may address issues in relation to: - pedagogy; - learning; assessment; - epistemology; - affective issues; - research methodology; - connections to other disciplines; - connections to the workplace or society more widely.





supported by



lational lesearch

9

#### Poster Presentations

Your abstract should give an overview of the work to be presented using text although the poster itself should be visually attractive. Posters presented at the conference should be A1 in size and portrait in orientation.

#### Symposia

Individual symposium contributions should be proposed in the usual manner together with an overarching proposal that should clearly indicate the connectivity of the contributions and set out a rationale for the symposium proposal. The overarching proposal should clarify exactly which individual contributions are included in the symposium.

#### Workshops

Workshop presentations provide a more interactive format that you can use to involve the audience in hands-on activity. You might propose such a session if, for example, you wish to present work that is developmental in nature. For example, you might demonstrate new approaches to curriculum materials, assessment, models of professional development and so on.

All proposals to contribute to the conference should be made by submitting an abstract. Submit your abstract here Abstract submission guidelines. Confirm registration by following the link sent in a confirmation email (Kindly check your junk mail/spam folders as well. Contact us if you do not receive this email).

Please note you are required to have registered and paid for the conference prior to your abstract being accepted. Authors that need early acceptance because of protracted approval processes need to send their abstracts as soon as possible for early notification of acceptance.

#### Submit abstract

Authors can submit abstracts electronically by following this procedure:

First you need to create a log in account.

Confirm registration by following the link sent in a confirmation email.

Log in and click the 'Add abstract' button.

You can edit and add additional authors after adding your abstract.

Click the 'Submit for review' button when you are ready.

#### Amend abstract

If your abstract submission requires amendments, you will be notified by email Log in and click on the abstract title to open it.

Read the reviewer's comments.

Click on 'Edit' to amend the abstract and remember to save.

Click on 'Resubmit for review' in order for the reviewers to be notified.









#### Letter of invitation

The congress organization will be pleased to send a formal letter of invitation to delegates requesting an invitation letter for visa purposes. It is understood that such an invitation is intended to help potential delegates to raise funds or to obtain a visa. This does not imply a commitment from the congress to provide any financial support. Letters of invitation may be requested from the congress secretariat no later than 23 June 2017. The letter link will be sent via email.

## 9. Social programme and accommodation

There will be an enjoyable social programme, which will include a welcome reception and welcome gathering, conference dinner, wine tasting and excursion. Participants can also arrange pre- and post-conference tours - information about possible tours will be published on the website. A great variety of hotels and affordable bed-and-breakfast accommodation are close by and can be found on the website of the conference. There will be pre-bookings in recommended hotels at special rates

#### 10. About ICTMA

The International Community of Teachers of Mathematical Modelling and Applications (ICTMA) consists of researchers and teachers interested in the teaching and learning of modelling and applications in mathematics at the primary, secondary, and tertiary levels as well as in professional and workplace environments. ICTMA is one of the five affiliated study groups of the International Commission on Mathematics Instruction (ICMI) and became a member in 2004.

ICTMA emerged from the community of scholars and researchers supporting the International Conferences on the Teaching of Mathematical Modelling and Applications which have been concerned with research, teaching and practice of mathematical modelling since 1983. The aim of the group is to foster research and the teaching and learning of mathematical modelling and the ability to apply mathematics to genuine real world problems in primary, secondary, and tertiary educational environments including teacher education, together with professional and workplace environments. A distinctive aspect of ICTMA is the interface it provides for collaboration between those whose main activity lies in applying mathematics or in the fields of applications of mathematics, but who have an informed interest in educational issues, and those whose principal affiliations are within education, who have a commitment to promoting the effective application of mathematics to problems outside mathematics.







The International Executive Committee of ICTMA is led by Professor Gloria Stillman (Australia), President. The other members of the International Executive Committee are: Dr Jill Brown (Australia), Prof Susana Carreira (Portugal), Prof Dr Gabriele Kaiser (Germany), Prof Angeles Dominguez (Mexico), Prof Toshikazu Ikeda (Japan), Prof Jinxing Xie (China), Prof Maria Salett Biembengut (Brazil), Prof Geoff Wake (UK), Dr Helena Wessels (South Africa).

Full ICTMA conferences have been held biennially since 1983. The work of ICTMA is published in its dedicated series of books by Horwood Publishing and Springer, as well as in various journals.

#### **ICTMA International Conferences:**

1983	ICTMA1	University of Exeter, England
1985	ICTMA2	University of Exeter, England
1987	ICTMA3	University of Kassel, Germany
1989	ICTMA4	Roskilde University, Denmark
1991	ICTMA-5	Freudenthal Institute, Netherlands
1993	ICTMA-6	University of Delaware, USA
1995	ICTMA-7	University of Ulster, North Ireland
1997	ICTMA-8	University of Queensland, Australia
1999	ICTMA-9	University of Lisbon, Portugal
2001	ICTMA-10	Institute of Technology Beijing, China
2003	ICTMA-11	Marquette University, USA
2005	ICTMA-12	City University London, England
2007	ICTMA-13	Indiana University, USA
2009	ICTMA-14	University of Hamburg, Germany
2011	ICTMA-15	University of Melbourne/Australian Catholic University,
		Australia
2013	ICTMA-16	Universidade Regional de Blumenau, Brazil
2015	ICTMA-17	University of Nottingham, Nottingham, UK
2017	ICTMA-18	RUMEUS (Research Unit for Mathematics Education),
		Stellenbosch University, South Africa

For details of the ICTMA study group see <a href="http://www.ictma.net">http://www.ictma.net</a>



12





#### **Conference fee** 11.

The conference fee will include access to all aspects of the scientific programme as well as a conference pack, a welcome get-together, snacks and lunches, the conference dinner, wine tasting, as well as a hardcopy of the conference proceedings which will be published after the conference.

13

#### Registration and booking

Registration will open on 7 January 2017

#### **Congress registration counter**

The congress counter will be located onsite at the Sanlam Training Centre and will be open from 23<sup>rd</sup> July 2017 onwards. Registration will open on 23<sup>nd</sup> July from 16:00-18:00 and then from Monday 24<sup>th</sup> from 08:00 onwards

#### **Critical Dates**

Registration and payment will open 17 November 2016 Early Bird closes 17 April 2017 Pre- Registration and payment closes 13 July 2017

#### **Registration Costs**

To be published in Jan 2017

Please note that you will be able to pay via credit card or bank transfer. All fees must be paid in advance of the conference.

#### **Sponsorship & Exhibition** 12.

The Organizing Committee of ICTMA18 would like to extend to you an invitation to participate in the conference by sponsoring, advertising and/or exhibiting.

We will support our sponsors to ensure they receive maximum return on their investment and receive the exposure to which we agreed to.

Since each potential sponsor has a different set of objectives, requirements and budget; a number of alternative sponsorship options have been made available which allows one to choose one which meets those particular requirements.

There will be only a few select advertising opportunities available. These will feature in the Book of Abstracts & Programme as well as on all our electronic communications to all Plato members and other databases worldwide.









Our sponsors and advertisers will all enjoy full recognition for the duration of the conference as is relevant to the sponsorship opportunity decided upon.

#### Sponsorship options

Sponsorships are awarded on a first come, first served basis. The options are:

Platinum, Silver or Gold, and/or		
Bags	Lunch Drinks	
Dinner	Proceedings	
Welcome Function	Lucky Draw Prize	
Delegate Gifts	Presenters Gifts	
Registration	Workshop	

Booking for sponsorship and advertising will open 17 November.

#### Advertising Options

Adverts are awarded on a first come, first served basis

Programme - inside front cover (excl artwork)				
Programme - inside back cover (excl artwork)				
Programme - outside back cover (excl artwork)				
Programme - inside pages per A5 advertisement (excl artwork) other				
options available on request				
Programme - inside pages per half A5 advertisement (excl artwork)				
other options available on request				

Booking for sponsorship and advertising will open 17 November.

sponsored by 🔗 Sanlam

#### Exhibition

The Organizing Committee of ICTMA18 would like to extend to you an invitation to participate in the conference by sponsoring, advertising and/or exhibiting. The Exhibition will be held indoors and will consist of approximately 5 Stands where Manufacturers and Professional Service Providers will be able to showcase products and services to potential clients.

Stands are awarded on a first come, first served basis.



14



Critical Dates	
Booking and Payment	From 17 November 2016
Build-up	23 July 2017
Exhibition Stand Sales Closes	23 June 2017
Breakdown	28 July 2017

#### Stand Details

The exhibition will be in the Sanlam Training Centre. The stands will not be supplied with a shell scheme package but will include a table and two chairs.

Booking for sponsorship and advertising will open 17 November.

#### **Cancellation Policies**

- Should booking be cancelled unless the package or stand can be resold for the full amount, cancellations will be charged in full all prepaid money will be non-refundable.
- Cancellation must be submitted in writing.

## 13. Other important info

#### Venue Address and Contact Details:

Sanlam Training Centre Corporate Office 2 Strand Rd, Bellville +27 21 947 9111

#### Language

While French and German are becoming increasingly common with immigration from Europe as well as West and Central Africa, the business language of Cape Town and the Western Cape is English.

#### Value for Money

The destination is recognised internationally as one of the most affordable business tourism and incentive travel destinations in the world.

sponsored by 🔗 Sanlam

#### Climate

A moderate Mediterranean climate with winter rainfall.



15



#### Currency

Foreign currency can be exchanged at commercial banks and at various Bureaux de Change.

The Rand is the official currency in South Africa.

Banks are open on Monday, Tuesday, Wednesday, Thursday and Friday banks typically open between 9am and 3pm; on Saturday opening hours are between 9am and 11am

#### Тах

Majority of goods sold in South Africa is subject to a 14% Value Added Tax (VAT). Tourists are not exempt from paying VAT. However, they can claim back the VAT portion if the value of the goods bought exceeds a certain amount – currently, R250.

To claim the VAT, the goods must be taken out of the country within 90 days from the date of purchase. The goods must be presented for inspection on departure and accompanied with

a tax invoice. The invoice should contain the usual information (name of the seller, seller's VAT registration number, description of goods, the price and the VAT amount). If the value of the goods on any single invoice exceed a certain amount (currently R2000), the buyer's name and address should also appear on the invoice or on the credit card payment slip.

Visitors who wish to claim VAT should go to the VAT refund administration office or customs official at the port of exit. If a tourist leaves South Africa without claiming a VAT refund, it is

still possible to do it, but the procedure is more involved. Such a claim must be lodged within three months from the date of export.

There is no VAT exemption on eating, drinking, or going out in South Africa; goods consumed or services rendered in the country do not qualify for VAT refunds.

#### Internet & wireless connectivity

South Africa offers a sophisticated internet network and Wi-Fi is readily available throughout the city. Most of the hotels will offer Wi-Fi connectivity.

#### Mobile phones

A variety of mobile networks are available in South Africa and local. Sim cards are available at airports and major shopping centres.

#### Measurements

Distances are measured in kilometres and metres Celsius degrees is most commonly used in South Africa Kilograms and grams are used to indicate mass





supported by



National Research Foundation

#### Electric current

240 volts AC. For small appliances, a plug adaptor may be needed for three pin sockets.

#### Driving

An international driver's licence is required when driving around South Africa. Driving is on the left and speed limits are in kilometres.

#### Water

The regions superior water supply infrastructure guarantees some of the best water in the world. Spring water is available bottled

#### Time

South African Time is set at GMT +2.

There are no time zone differences within South Africa and there is no daylight saving system in summer.

#### **Shopping hours**

Monday to Sunday typically open between 9am – 5.30pm, although the V&A Waterfront and Canal Walk shopping centers are open until 9pm.

#### A centre for knowledge

Cape Town and the Western Cape is an intellectual magnet, with four world-class universities and other research institutions in fields as diverse as astronomy, science, medicine and social politics. It is also the legislative capital of South Africa. The destination is fertile ground for intellectual dialogue and the exchange of ideas.

Investment in technology and IT sectors are establishing Cape Town as the centre of Africa's development in these fields.







#### Where we are



18

#### Traveling to South Africa



Safeguarded by one of the world's most progressive constitutions, an independent judiciary, a free press and a robust multi-party political system.

#### Adventure experiences

Whatever your adventure craving, South Africa can satisfy it. We have world-class climbing, surfing, diving, hiking, horseback safaris, mountain biking,

river rafting - and a host of other adventures supported by dedicated operators.

#### Cultural experiences

From modern art galleries to rock art centres, state-of-the-art museums to remote cultural villages, city jazz clubs to open air festivals ... just some of the ways in which you can experience our rich culture and heritage for yourself.

#### City experiences

Our cities are an exciting mix of first- and third-world influences. From happening Cape Town - one of the most beautiful cities in the world - to busy, bustling Johannesburg, each has its own unique attractions.

#### Food and wine

It's a cultural melting pot! South African food celebrates our rich heritage and natural bounty of seafood, meat, game and plants. Our wine has been earning rave reviews internationally for 300 years. Check out the menu - and find out where to eat tonight!









#### Sun and surf

From the West Coast's wild stretches of sand to the subtropical shores of Maputaland, there's a beach for every reason. Watch the sun rise over the Atlantic or Indian Ocean, work up that perfect tan, or get active with some of the world's best surfing, windsurfing and diving. And then there's the golf.

#### Wildlife and wilderness

There's much more to South Africa than the lion, leopard, elephant, rhino and buffalo. Hundreds of species of birds and small animals like the cute bush-baby and the curious meerkat abound. And supporting all these is our unparalleled botanical richness.

#### Traveling to Cape Town

#### www.tourismcapetown.co.za



Photo: Thomas Raupach

There is nowhere like Cape Town. Perched between the ocean and the mountain, with a national park as its heart, it's a place to renew and reconnect.

Cape Town, the "Mother City", is the oldest city in our country and has a cultural heritage spanning hundreds of years. It also has the top five national attractions in South Africa that should appear on every visitor's itinerary all year round.



Table Mountain cable car











Robben Island where Nelson Mandela was incarcerated



The V & A Waterfront



Cape Town and Stellenbosch Wine Routes



Kirstenbosch Botanical Gardens









20

Don't miss a visit up Table Mountain; the Victoria and Albert Waterfront, a unique shopping and holiday experience on a scenic working harbour; Robben Island, the former home of Nelson Mandela; the Cape Town Wine Routes, where some of the world's best wines are produced and Kirstenbosch Botanical Gardens, internationally acclaimed as one of the great botanical gardens of the world.

The unique topography of the region makes it easy to orientate oneself as long as you remember that with Table Mountain behind you and Robben Island before you, you are facing north, looking across Table Bay and up the west coast of Africa.

To help you find your way around the Cape Town region, the area is divided into four tourism areas - Cape Town Central, Cape Town North, Cape Town South and the Cape Town East. These areas are defined by their geographical location and within each area there are a number of suburbs. Please visit <u>http://www.tourismcapetown.co.za</u> for more details.

#### Cape Town is one of the most popular long haul destinations in the world.

It is in Cape Town that the Rainbow Nation really covers the spectrum. Between beautiful Cape Dutch homesteads, traditional dancers with painted faces performing in the streets, the smell of spicy Malay cooking and the taste of a well-made wine, this city will fill your senses.

You will never be bored in Cape Town. Table Mountain offers some of the best climbing in the world, and it's right here in the city. The surfing is fantastic; the diving is cold but good. You could go mountain biking, or go sea kayaking - you may see whales or penguins. If the wind is right, you could fly off Lion's Head with a qualified tandem paraglider pilot, and land on the beach in time for sundowners. You'll never be bored.

If all this sounds too gung ho for you, don't worry. You can shop till you drop at Cavendish, Canal Walk or the Waterfront. There is lots of live music, art exhibitions, museums, plays and even opera, ballet or symphony concerts on all year round.

#### Examples of possible short pre and post tours

Diamonds, Gold and Tanzanite – half day tour to Cape Town's Diamond Museum and then onto the Gold Museum

Victoria and Alfred Waterfront and Robben Island - Half-day tour of the Victoria and Alfred Waterfront, and Robben Island where Nelson Mandela was incarcerated (weather permitting)



sponsored by





21

Cape Winelands – full day tour of a number of wine estates and surrounds in the Cape Town and Stellenbosch areas

22

Cape Winelands – half day tour of the Constantia Valley in Cape Town, home of a number of famous wine estates

Hermanus Wines and Whales – a full day tour to the coastal village of Hermanus, famous for whale sightings as well as vineyards and wine estates

Private Game Reserves close to Cape Town, hosting the Big Five - different shorter visit options available

#### **Examples of possible overnight leisure tours**

Kruger & Canyon Adventure - Kruger National Park, Blyde River Canyon, Johannesburg Cape Routes Uncovered - 6-day circular - Klein Karoo, Garden Route, Cape **Riviera/Whale Route** 

Kwazulu Natal Highlights - 7 days, Drakensberg Mountains, Battlefields and Zululand Wild Coast & Safari - Fauna, flora, Indian Ocean, Coffee Bay, Hole-In-The-Wall Safaris to Game Reserves such as Kruger National Park, Pilanesberg Game Reserve, Addo Elephant Park

These are only a few of the possible tour options. Tailor-made travel packages can be arranged to suit your specific needs for pre or post Conference travel.

#### Visas

South Africa has introduced new regulations requiring travellers to the country who need to obtain a visa to submit in-person biometric data, at an approved South African visa centre in their country of origin, to support the application. Collection of processed applications will be from where the application was submitted. Original passport will be required as applicant's proof of identity and handing over of the visa label or refusal letter to applicants. Representative must provide an original Photo ID, an Authority Letter as well as the applicant's original passport if collecting the decision on behalf of the applicant/s.

http://www.vfsglobal.com/dha/southafrica/Biometric Data Collection.html

In addition, regulations were introduced to prevent child trafficking and thus all minors require the consent of their parents when traveling into or out of the

http://www.dha.gov.za/index.php/statements-speeches/621-advisory-new-Republic. requirements-for-children-travelling-through-south-african-ports-of-entry-effective-1-<u>june-2015</u>

Visitors' visas are required from some international travellers permanently resident outside South Africa who wish to visit the country on a temporary basis for tourism or







business purposes for a period of 90 days or less for a specific purpose. <u>http://www.dha.gov.za/index.php/immigration-services/apply-for-a-south-african-visa</u>

- There is a fee charged for issuing a visa, and you should check the cost as this is updated annually. The fee is payable in different currencies in different countries.
- Visas are not issued at South African ports of entry, and airline officials are obliged to insist on visas before allowing passengers to board. If you arrive without a visa, immigration officials are obliged to put you onto a flight back to your home country.

A list of countries where the residents do not require a visa to enter South Africa or where visitors will be subject to specific conditions concerning the duration of their visit can be found here: <u>http://www.dha.gov.za/index.php/immigration-services/exempt-countries</u>

#### Insurance

Please notice that the congress fee does not include insurance. All participants should arrange for their own insurance. Health and accident insurance is recommended and would need to be purchased in the country of origin.

#### The city and transport:

Cape Town International Airport

Award-winning Airport only 20 min from the City Centre and 20min from the conference venue.





supported by

Direct International flights from London, Frankfurt, Dubai, Amsterdam, Singapore, Paris, Amsterdam.

Connections via Johannesburg from New York, Washington DC, Atlanta, Sao Paolo, Beijing, Hong Kong, Doha, Mumbai, Perth, Sydney, Abudabhi, (and more)

#### **Getting Around**

Effective and modern transport options



sponsored by 🚱 Sanlam



Transport infra structure: Taxi's, Shuttles, Car Hire, (Busses only in the city centre)

24



#### By taxi or coach

*Uber* is the best way to get around *Cape Town*. Download the app and get a ride in minutes. https://www.uber.com/cities/cape-town/

#### Car rental

Cape Town International Airport offers a wide selection of car rental companies with good road systems. An international driver's license is required and driving will be on the left hand side of the road.

#### MyCiTi bus service

The MyCiTi airport-to-city service runs between the Cape Town International Airport and the city centre bus stations via the N2 and Nelson Mandela Boulevard. This service will operate between 20 and 24 hours a day at a cost of approximately R70.00 one way. It will depart every six to 30 minutes, depending on demand. The MyCiTi inner-city bus service provides convenient transport to hotels, accommodation nodes, restaurants, entertainment areas, parking areas, and places of interest.

Prices vary from point to point. http://myciti.org.za/en/routes/interactive-routes/

The MyCiTi bus service does not run to Bellville, a taxi or shuttle can be used to travel to Bellville (see website)

#### Shuttle transport

Delegates are required to arrange their own transport to and from the airport. However, the preferred shuttle company for the conference is Citi Hopper Tours.

Tel : +27 (0)21 936 3460/1

Email : bookings@citihopper.co.za

Fax: +27 (0)21 934 8282









Hours : 8am - 11pm

## 14. **Contacting the conference organisers**

Scientific programme enquiries: <u>academic@ictma18.co.za</u> Administrative enquiries: <u>admin@ictma18.co.za</u>

General Enquiries: Lesley Ferreira <u>lesley@cebisaconferences.co.za</u> Cebisa Conferences – ICTMA18 Secretariat Tel: +27 21 671 7670 Fax: +27 21 671 7670/086 692 7220 Cell: 082 494 5475 Website: www.ictma18.co.za

## 15. Mathematical Modelling Teacher Day

The International Community of Teachers of Mathematical Modelling and Applications (ICTMA) invite all *Intermediate* and *Senior* Phase teachers to participate in the first South African Mathematical Modelling Teacher Day. The Teacher Day will take place on the day following the 18<sup>th</sup> International Conference on Mathematical Modelling and Applications (ICTMA18) and will provide teachers with experiences and productive ideas for incorporating mathematical modelling into their classroom teaching. Two renowned colleagues from the ICTMA community will act as facilitators.

- Location: The SANLAM Training Centre Corporate Office, 2 Strand Rd, Bellville, Cape Town.
- **Date:** Saturday, 29th July 2017 from 08:30-16:00.
- **Cost:** Free (includes tea and lunch)
- **Attendees:** Intermediate and Senior Phase teachers, curriculum advisors, teacher educators, interested academics.

sponsored by 🚯 Sanlam





- Facilitators: International experts attending ICTMA-18.
  - **Registration:** Online. **No 'on the day' registrations.**
  - **Note:** There are a limited number of places available, so register as soon as possible.
  - **CPTD Points:** We are in discussion with provincial Education Departments to accredit this event.

#### **PROGRAMME:**

- 8:30-08:45 Welcome and Introduction of Facilitators
- 08:45-09:15 Mathematical Modelling and the CAPS curriculum
- 09:15–11:00 Mathematical modelling in action
- 11:00-11:30 Tea
- 11:30-13:00 Mathematical modelling as elicitor of quality Mathematics learning
- 13:00-14:00 Lunch
- 14:00-16:00: Quality Teaching of Mathematical Modelling and Applications
- Accolades and awards 16:00

Please contact Mr Herholdt Bezuidenhout at herholdtb@gmail.com if you want to attend.





