

The Royal Society  
OF VICTORIA  
Promoting science since 1854

#sci4scifi  
**SUNDAY**  
30 APRIL 2017

**Aurealis**  
Australian Fantasy & Science Fiction

$$x^2 + px + q = 0$$

$$x = 6 - 2y$$

$$x + a = b$$

$$f(x) = \tan x$$

$$f(x) = \sin x$$

$$x_{1/2} = -\frac{p}{2} \pm \sqrt{\left(\frac{p}{2}\right)^2 - q}$$

# SCIENCE FOR SCIENCE FICTION

A Conference for Science Fiction Writers

**EMERGING  
WRITERS'  
FESTIVAL**

Proudly supported by the



# SCIENCE FOR SCIENCE FICTION

A Conference for Science Fiction Writers

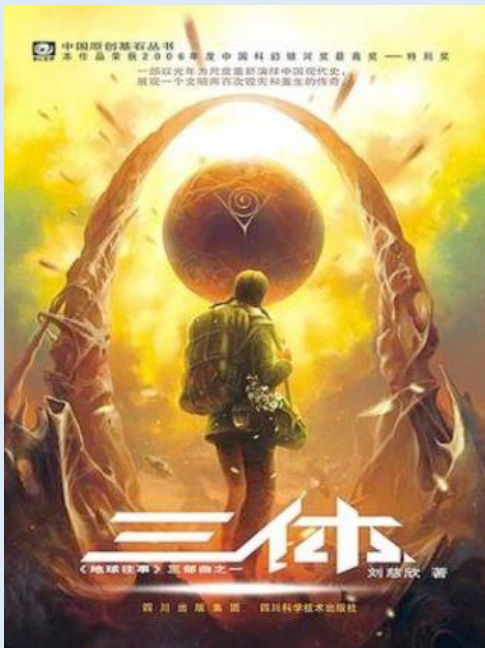


Sunday, 30<sup>th</sup> April, 2017

8:30am to 5:00pm

The Royal Society of Victoria

8 La Trobe Street, Melbourne



*"I was in China in 2007, at the first party-approved science fiction and fantasy convention in Chinese history. And at one point I took a top official aside and asked him Why? SF had been disapproved of for a long time. What had changed?"*

*"It's simple, he told me. The Chinese were brilliant at making things if other people brought them the plans. But they did not **innovate** and they did not **invent**. They did not imagine. So they sent a delegation to the US, to Apple, to Microsoft, to Google, and they asked the people there who were inventing the future about themselves. And they found that **all of them had read science fiction when they were boys or girls.**"*

*Neil Gaiman, Lecture for the Barbican in London, 14 October 2013*

Our first ever "Science for Science Fiction" writers' conference kicks off this year at the historic Royal Society of Victoria. We will provide current and aspiring authors with expert insights on the finer points of the writer's craft from some of Australia's finest SF authors and editors. Spend a day learning new techniques for honing your craft and learn to pitch your big idea to literary agents and publishers.

We will also get your imagination firing from a foundation of solid science. The day will feature insights from working scientists (with a taste for science fiction) to help dispel some common misunderstandings of scientific principles such as classic mechanics, cell biology functions, along with the nature of time, space, electromagnetism, quantum mechanics and the very

universe itself. Discover some of the latest trends, developments and discoveries in science that offer fertile ground for your SF stories.

## SCIENCE *and* SCIENCE FICTION: A SYMBIOSIS

The genre of speculative fiction and, more specifically, science fiction is a relatively recent phenomenon. Both **Isaac Asimov** and **Carl Sagan** considered Johannes Kepler's *Somnium* (a c.1620 depiction of a journey to the Moon that explores how the Earth's motion might be seen from there) as the first known science fiction story. It might be argued that science fantasy – essentially, a playful form of **inductive reasoning** – was one of the many precursors to Western Europe's "Age of Enlightenment," helping to fuel and give rein to the innate human curiosity and technical ambition that impels all research and scientific endeavour in this modern age.

The relationship between fact and fantasy can be fraught, however; particularly where the “science” in science fiction is more akin to magic, utilised for *deus ex machina* plot points to resolve the characters’ otherwise insurmountable obstacles to resolution. As UK-based writer Simon Dunn [illustrates the point](#):



“Rocket Cat” depicted in “Feuer Buech,” a treatise on munitions and explosive devices by Franz Helm, approximately 1500-1567.

“Think of all the **technobabble** spouted on Star Trek to help the characters overcome their latest plot hurdle. For every Heisenberg compensator, there's a dozen polarity reversals and a sprinkling of field dampening plasma vents.”

“At least they make some effort I suppose. Back to the Future has a scientist in a white coat and mad hair say ‘Flux Capacitor’ and ‘One Point Twenty One Gigawatts’ whilst falling off a toilet. But it works. In fact, it works much better than the technobabble. And if it works, writers will do it.”



A gripping scene from DC’s “Adventure Comics” #325

## AUTHORS: CONSIDER AN IMPORTANT FANBASE

Science fiction in all its forms is one of the best science engagement avenues at our disposal, yet to accommodate a readership frustrated with “pseudoscience,” it’s important for writers to draw inspiration for science fiction from science fact, particularly to **satisfy the tastes of science-literate individuals who represent a vocal proportion of the SF audience.**



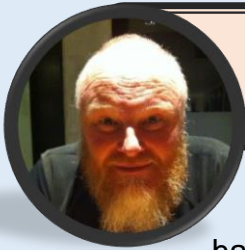
That awesome scene from Gravity.  
Not pictured: science.

Frequent critiques of blockbuster movies, bestselling novels and video gameplay by science enthusiasts range from ignorance of Newton’s classical mechanics, misapprehension of brain and cell biology functions, or wildly erroneous assertions about the nature of genetics, evolution, time, space, electromagnetism, quantum mechanics and the universe itself.

How do we strike the balance between the creative process and faithfully representing the frontiers of human knowledge? Join us, and let’s find some answers.



## FEATURED SESSIONS & SPEAKERS



### “Reading Science Fiction” with Justin Ackroyd

Proprietor, **Slow Glass Books**: Australia’s Largest Science Fiction, Fantasy & Horror Mail Order Bookstore

Justin is a huge Australian fan and bookseller of science fiction and fantasy. He has been a keen organiser and fixture of fan conventions for decades, and has a comprehensive insight to the key works that have set the standard for writing in genre. He has been tuckerized in a novel by David Weber.  
<http://www.slowglass.com.au/>

### “Reading Science Non-Fiction” with Dr George

Aranda  @PopSciGuy

“Science Book a Day” Blogger, Science Education Researcher & Convenor of “The Big Ideas Book Club”



Dr George Aranda is a former cognitive neuroscientist who has moved from the world of brains to science education research and science communication. Now researching and teaching at Deakin University, he has broad interests in writing, social networking modes of communication, podcasting, science communication videos and understanding how scientists and their work are perceived in the world.

George is the outgoing Melbourne President of the Australian Science Communicators network and is the insidious entity behind **Science Book a Day**, a project to engage ordinary people with the excitement of real science through reviewing the latest in great non-fiction writing. With Warren Bonett and friends, George convenes the Big Ideas Book Club.

<https://sciencebookaday.com/>



### “The Big Ideas Book Club” with Warren Bonett

 @EmbiggenBooks

Proprietor, Embiggen Books & Convenor of “The Big Ideas Book Club”

Bucking the trend of bookshops closing down, **Embiggen Books** threw open its literate doors to the people of Melbourne in August 2011. In 2011 Warren and Kirsty Bonett brought their arts-meets-sciences store from Noosaville in Queensland to Little Lonsdale Street, opposite The Wheeler Centre. Warren flavours his store with excellent, engaging titles in science fiction and non-fiction alike, and convenes the Big Ideas Bookclub with George Aranda and friends, alternating readings of a science fiction and science non-fiction book every month. <http://www.embiggenbooks.com/instore-events/the-big-ideas-book-club/>

### “Mind Blowing Astrophysics” with Dr Alan Duffy

 @astroduff

Astrophysicist, Science Communicator



Incredible things are happening in astrophysics! We are uncovering the invisible universe with a fundamentally new sense - gravitational waves! Melbourne is leading the charge with the new ARC Centre of Excellence for Gravitational Wave Discovery based at **Swinburne University**.

We are also searching for the cause of enormous explosions seen in the radio spectrum, lasting less than the blink of an eye. With the **Deeper, Wider, Faster** survey we are using telescopes

around the world attuned to almost every imaginable wavelength of light to search for rare exploding stars as they appear in real time with dozens of astronomers working together in facilities on every continent.

With simulated universes created with supercomputers, together with our work with the world's first **dark matter detector** in the southern hemisphere at Stawell in Western Victoria, we are honing in on the nature of the missing 85% of the mass in the universe.

Finally, as part of Breakthrough Listen we are developing key technologies to search for **potential alien signals** using the Parkes radio telescope. <http://www.alanrduffy.com/>



### **“The Limits of Genetics” with Sophia Frentz**

 **@SophiaFrentz**

Geneticist, Science Communicator, RSV Councillor

**Can you create the perfect human?** What do we know about what genetics can - and can't - predict, change or achieve? What is the near future of the human genome?

Sophia Frentz is a Genetics researcher at the Murdoch Children's Research Institute and the University of Melbourne, looking into potential treatments for early-onset mitochondrial disorders. She was named one of 20 young Australians on the cusp of greatness, despite being a Kiwi, and was recently featured in “20 scientists to watch” in the *RiAus Ultimate Science Guide*.

Sophia is a talented science communicator and has written for *The Conversation*, *The Cusp*, *Archer*, and *Lateral Magazine*. She is passionate about and campaigns for diversity and equity in the Science, Technology, Engineering and Mathematics workforce. <https://womeninscienceaust.org/stem-profiles/sophia-frentz/>

### **“Digital Storytelling & Alternative Publication Platforms” with Kat Clay**

 **@kat\_clay**

Creative Producer & Writer



Kat Clay is a freelance creative producer and writer with ten years of experience across video, photography, digital design and social media strategy. Her visual work has been featured on major news programs, TV commercials and *The Age* and *Herald Sun*.

As a writer, her supernatural crime novella, *Double Exposure*, was released by Crime Factory in 2015 and long-listed for the Davitt Award. She has been published in *And Then...*, *The Victorian Writer*, *Literary Traveller*, *Travel Weekly*, *Matador Network* and *Weird Fiction Review*.

<http://www.katclay.com>



### **“Writing for Kids & Young Adults” with George Ivanoff**

 **@George\_Ivanoff**

Author of Children's and Young Adult Fiction

George Ivanoff, a Melbourne-based author, has written over 100 books, including the *You Choose* series and the *Gamers* trilogy. Although writing fiction across many genres, George, time and time again, returns to the genre that first sparked his interest in reading and writing – science fiction. George drinks too much coffee, eats too much chocolate and watches too much *Doctor Who*. Check out his website: <http://georgeivanoff.com.au>



### “Writing ‘Hard’ Science Fiction” with Sean McMullen

Science Fiction Author

Sean McMullen left scientific computing for full time writing in 2014. Before that, as an after-hours author, he gained an international reputation with his novel about a human powered computer, *Souls in the Great Machine*. He has been published in a dozen languages, won fifteen awards, and was runner up in the 2011 Hugo Awards with his novelette *Eight Miles*. The six book children's fantasy series, *The Warlock's Child*, was jointly written with Paul Collins and published in 2015. His recent SF for adults appeared in *Lightspeed* and *Asimov's Magazine*, and the anthology *Dreaming in the Dark*. <http://www.seanmcmullen.net.au/>

### “Writing Dystopias” with Meg Mundell

 @MegMundell



Dr Meg Mundell is a Melbourne-based author, journalist and social researcher. Her critically acclaimed debut novel *Black Glass* (Scribe, 2011) was shortlisted for two Aurealis Awards, the Barbara Jefferis Award, and the Norma K Hemming Award. Meg's work has appeared in *Best Australian Stories*, *New Australian Stories*, *The Age*, *The Monthly*, *The Financial Review*, *Sydney Morning Herald*, *Meanjin*, *Eureka Street*, *Australian Book Review* and other outlets. Meg has worked as a university lecturer, policy analyst, magazine editor and research assistant. She holds a BA (psychology/ philosophy) and a PhD (creative writing), and has just finished writing her second novel *The Trespassers*, set in a dystopian near-future world very like our own. <http://www.megmundell.com/>

### “Who Owns Space?” with Dr Kevin Orrman-Rossiter

 @lucidkevinor

Physicist, Science Industry Specialist, RSV Councillor



You don't have to be a space nerd like Kevin to know that asteroid mining is a big, trending topic of the moment. Advocates of space mining promise a post-scarcity world of abundance, where 9 billion people aren't scraping out a sparse existence on the ravaged surface of planet Earth. There is no shortage of Utopian dreams when it comes to space exploration. You can find them in the earliest science fiction works right up to the present day. So with new countries and viable private companies now entering the space race – think SpaceX and Mars One for a start – what “near-Earth wealth” of ideas can we mine for the science fiction writer? <http://lucidthoughts.com.au/>

### “World Building” with Michael Pryor

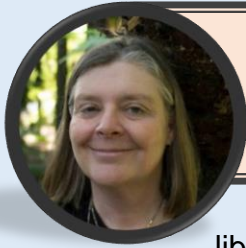
 @michaeljpryor

Fantasy & Science Fiction Author, Editor, Publisher



Michael Pryor is one of Australia's most popular and acclaimed authors of Fantasy and Science Fiction. He has published more than thirty-five novels (including the *Laws of Magic* series, *Machine Wars* and *10 Futures*) more than fifty short stories, and has over one million words in print. His work has been longlisted for an Inky award, shortlisted for the WAYBR award and seven times shortlisted for the Aurealis Award. Seven of his books have been awarded Children's Book Council of Australia Notable Book status. His latest book is *Leo da Vinci Vs the Ice-cream Domination League*. His website is <http://www.michaelpryor.com.au>





## “Writing Climate-based Science Fiction” with Jane Routley

Fantasy and Science Fiction Author

Jane Routley has had a variety of careers, including fruit picker and Occult librarian and she lived in Germany and Denmark for a decade.

She’s published 4 books and won two Aurealis awards. Her short stories have been widely anthologized and read on the ABC. She’s written a blog about Flinders Street Station and another called Station Stories about her life staffing a railway station. She’s involved in Climate Change activism and currently writing “Cli Fi.”

Her current life ambition is to see an erupting volcano. <http://janeroutley.com/>

## “SF Writing Dos and Don’ts” and “Getting Published” with Dirk Strasser @DirkStrasser


Aurealis Magazine Publisher and Founding Editor, Author



Dirk Strasser has written over 30 books. He has won multiple Australian Publisher Association Awards and a Ditmar for Best Professional Achievement. His science fiction story “The Doppelgänger Effect” appeared in the World Fantasy Award-winning anthology, *Dreaming Down Under*. His fiction has been translated into a number of languages. He has co-written a number of market-leading mathematics textbooks, and co-edited *Aurealis* magazine since 1990. He describes a recent published story, “The Mandelbrot Bet,” as his attempt to write the ultimate hard SF time travel love story, where non-Gaussian randomness, Possibility Theory and Cosmology combine to save the universe. <http://www.dirkstrasser.com/>



## Pitching Sessions with Stephen Higgins

 @AurealisMag

Aurealis Magazine Publisher and Founding Editor, Author

Stephen Higgins is a playwright, short story writer and awards judge. He co-founded **Chimaera Publications** in 1990 and has co-published *Aurealis* for over 20 years. He has won a Ditmar for Best Professional Achievement. Stephen currently teaches High School English and plays guitar in a band. Like many thousands of others, he is working on a novel. <https://aurealis.com.au/>

### ABOUT THE PITCHING SESSIONS:

You can sign up for a pitch slot at registration, at the beginning of the day. Four pitch slots are available per session, allowing you ten minutes **MAXIMUM** per pitch and response. Your pitch needs to be a short, sharp “elevator pitch” for your story or novel; punchy and to the point. You will receive feedback on your pitch, its suitability for taking it further and, possibly, suggested avenues for you to pursue.



# CONFERENCE PROGRAM

8.30 am	Registrations Open <i>Burke &amp; Wills Room</i>				
9.00 am	Welcome and Opening (10 minutes) – <i>Ellery Theatre</i>				
	Session	<b>Stream 1</b> <i>Phillip Law Room</i>	<b>Stream 2</b> <i>Von Mueller Room</i>	<b>Stream 3</b> <i>Ellery Theatre</i>	<b>Pitch Sessions</b> <i>Cudmore Library</i>
9.10	1	Justin Ackroyd – <b>Reading Science Fiction</b> <i>Ellery Theatre (Plenary)</i>			<b>Pitch Sessions</b>
9.40		Dr George Aranda – <b>Reading Science</b> <i>Ellery Theatre (Plenary)</i>			
10.10	2	George Ivanoff <b>Writing for Kids &amp; Young Adults</b>	Jane Routley <b>Writing Climate-based SF</b>	Dirk Strasser <b>SF Writing Dos and Don'ts</b>	<b>Pitch Sessions</b>
11.00	Morning Tea, and The Big Ideas Book Club				
11.30	3	Sean McMullen <b>Writing 'Hard' SF</b>	Meg Mundell <b>Writing Dystopias</b>	Kat Clay <b>Digital Storytelling &amp; Alternative Publication Platforms</b>	<b>Pitch Sessions</b>
12.30 pm	Lunch, and launch of <i>Aurealis #100</i>				
1.30	4		Michael Pryor <b>World Building</b>	Dirk Strasser <b>Getting Published</b>	<b>Pitch Sessions</b>
2.30	5	Dr Kevin Orrman-Rossiter <b>Who Owns Space?</b>	Sophia Frentz <b>The Limits of Genetics</b>	Dr Alan Duffy <b>Mind-Blowing Astrophysics</b>	<b>Pitch Sessions</b>
3.30	Afternoon Tea				
4.00	6	Panel Session: <b>Science and Science Fiction</b> <i>Ellery Theatre (Plenary)</i>			
5.00 pm	Close				