

# COSAC'22

Conference on Science  
and Christianity 2022

**ISCAST**  
CHRISTIANS IN SCIENCE AND TECHNOLOGY

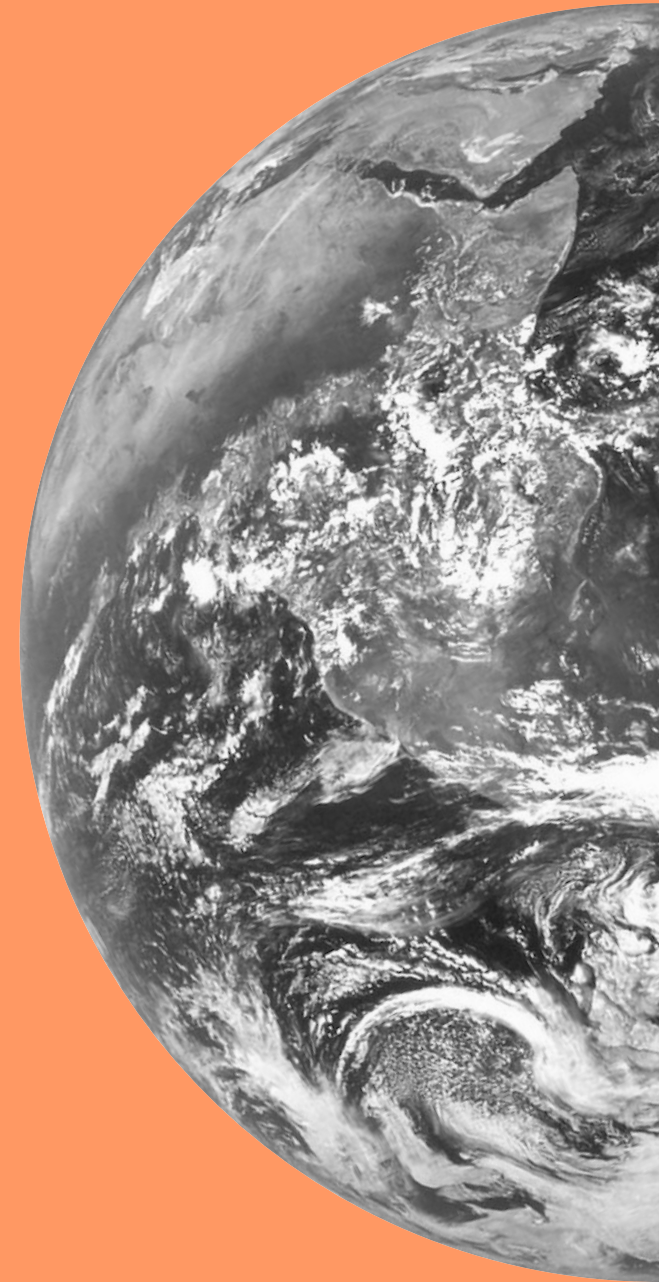
## CHRISTIAN LIVING IN A TECHNO-SCIENTIFIC WORLD

November 25 + 26, Ridley College Melbourne & Online

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# FULL SPEAKER & PRESENTATION LIST



# KEYNOTE SPEAKERS - DAY 1 "INSIGHTS"



**MEGAN  
BEST**

## Calling All Bioethicists: Australia's New Ethicentre and Its Reasons for Being

How might Christians respond to the increasing challenges raised by technological advances in human life and death issues? In October 2022, Associate Professor Megan Best founded Australia's new [Ethicentre](#). In this talk she will introduce the Ethicentre and the ethical challenges facing Christians in Australia.

**A/PROF MEGAN BEST** has over 30 years of experience in palliative care and medical ethics teaching, research, and practice, and she is internationally known for her work in ethics from a Christian perspective. She is currently Associate Professor of Bioethics at the Institute for Ethics and Society at The University of Notre Dame Australia and an Honorary Associate Professor at the University of Sydney medical school. Her research has focussed on bioethics at the beginning and end of life, and in the areas of genomics and palliative care. She has also researched extensively in the areas of spirituality in healthcare, whole person care, and psycho-oncology. She is the author of *Fearfully and Wonderfully Made: Ethics and the Beginning of Human Life* (2012) and *A Life Already Started* (2013). Throughout her career she has engaged with evidence-based health policy development, making important contributions to palliative care strategy and health legislation.



**ANDREW  
SLOANE**

## Enhancing Medicine? Should Medicine Be in the Business of Human Enhancement?

The application of biomedical technology to human enhancement raises important philosophical, theological, and ethical questions. This paper focuses on questions relating to the practice of medicine: in particular, whether medicine should be in the business of human enhancement. I briefly outline the landscape of human enhancement and articulate a theological framework for the justification of (biomedical) research. I outline a theology of medicine in which vulnerability is recognised to be a fundamental feature of human existence, and care of various kinds is medicine's primary response to it. In light of those theological perspectives, I seek to determine whether human enhancement and associated research is the proper concern of medicine. I close with some reflections on medicine, technology, and the commodification of the body in the late modern West.

**DR ANDREW SLOANE** is a Fellow of ISCAST and has medical and theological training. He is Associate Professor of Old Testament and Christian Thought at Morling College, Sydney, where he has taught since 2002. He teaches and researches in the areas of Old Testament, philosophy of religion, theology of medicine, bioethics, and integration of faith and work. Andrew qualified in medicine and practised briefly as a doctor before going into Baptist ministry. Prior to moving to Morling, he taught at Ridley College in Melbourne (1996–2002). He has published in Old Testament and hermeneutics, ethics, philosophy, and theology. He is the author of *Vulnerability and Care: Christian Reflections on the Philosophy of Medicine* (T&T Clark, 2016) and is currently pursuing research at the intersections of theology, disability theory, and philosophy of medicine.



**ALISTER  
MCGRATH**

## The Challenges of Science and Technology: Some Christian Reflections

This talk considers some of the challenges faced by Christians in an increasingly techno-scientific world. In addition to the longstanding suspicion that science and religious belief are incompatible, many are arguing that the future of humanity will depend on AI and human enhancement. In this talk, Professor McGrath will reflect on these challenges, offering a Christian evaluation of and response to the challenges posed by science, and the more recent rise of AI and transhumanism.

**PROF. ALISTER MCGRATH** is the Andreas Idreos Professor of Science and Religion at Oxford University. He is globally recognised for his work in historical theology, systematic theology, the relationship between science and religion, and his writings on apologetics.

# KEYNOTE SPEAKERS - DAY 2 “INTEGRATE”



**TONY  
RINAUDO**

## **Climate Change & Faith: What Can We Do, and Why Should We Do It?**

The popular news says it all: if we fail to change our approach to the planet, the consequences could be dire. What does Christian faith have to say about caring for our planet? How does Christian hope stack up in the face of global warming? What can Christians do, and why should we do it? Tony and Liz Rinaudo spent 17 years in Niger, one of the poorest countries on the planet, hoping to restore its degraded landscape by planting trees. After two years of failure and frustration, Tony discovered Farmer Managed Natural Regeneration (FMNR), which has revolutionised reforestation and changed livelihoods forever. In this talk, Tony will tell his story, suggest practical ways to fight climate-change (including FMNR), and discuss how Christian faith integrates with our environmental efforts.

**TONY RINAUDO**, also known as the “Forest Maker,” is the Principal Climate Action Advisor at World Vision Australia and a Fellow of ISCAST. He is known for pioneering Farmer Managed Natural Regeneration (FMNR), a simple method that restores degraded landscapes without planting trees. FMNR has revolutionised reforestation across Africa and beyond. Tony is the winner of the 2022 Australian Christian Book of the Year Award with his biography *The Forest Underground: Hope for a Planet in Crisis*, published by ISCAST.



**JENNIFER  
WISEMAN**

## **Learning from an Amazing Universe: Wonder, Purpose, Beauty, and Life**

Did you know there are more stars in the universe than there are grains of sand on Earth? Did you know that most stars in our galaxy have planets? Could there be life beyond Earth? What are we learning about stars, galaxies, dark matter, black holes, and life from investigating the universe with telescopes? In this talk, Dr Jennifer Wiseman will present some of the latest astronomical discoveries made with a variety of telescopes on the ground and in space. She will reflect on how her love of nature and curiosity about the universe has enriched her Christian faith.

**DR JENNIFER WISEMAN** is an astrophysicist, author, and speaker. She studies the formation of stars and planets in our galaxy using radio, infrared, and optical telescopes. Dr Wiseman studied physics for her bachelor’s degree at MIT, discovering comet Wiseman-Skiff as a student in 1987. She is now a leading astronomer and astrophysicist and serves as the senior project scientist for the Hubble Space Telescope. She enjoys giving talks on the excitement and wonder of science and astronomy. Jennifer is the Director Emeritus of the American Association for the Advancement of Science Dialogue on Science, Ethics, and Religion (DoSER). Jennifer is a Distinguished Fellow of ISCAST.

# PANEL DISCUSSION - DAY 2 “INTEGRATE” INTEGRATING SCIENCE & FAITH AT WORK



**JIA-YEE  
LEE**

**DR JIA-YEE LEE** is the Enterprise Fellow at the University of Melbourne (Faculty of Engineering and IT) with responsibilities in industry engagement and the management of the ARC Training Centre for Medical Implant Technologies. Jia-Yee has experiences in technology startup and commercialisation, developing government policies in health and medical research, and digital health. She has a PhD (Virology) and MBA (Melbourne Business School) from University of Melbourne. Jia-Yee is a Fellow of ISCAST.



**MICHAEL  
CLARKE**

**PROF. MIKE CLARKE** is Emeritus Professor of Zoology at La Trobe University where he was, for a number of years, the Head of the School of Life Sciences. He leads research into the impact of fire in the Mallee, the box-ironbark forests, the Central Highlands, and Wilsons Promontory. He also maintains an ongoing research interest in threatened species and threatening processes, and he continues to conduct ecological research that informs public policy. Mike is a Fellow of ISCAST.



**IAN HARPER  
(MODERATOR)**

**IAN HARPER** is an Australian economist best known for his work in public policy. He has worked with governments, banks, corporates, and leading professional services firms at the highest level. He is the author of *Economics for Life* (Acorn Press, 2011), which won the Australian Christian Book of the Year Award, and *Confessions of a Meddlesome Economist* (Acorn Press, 2019). Ian has an interest in the relationship between Christianity and the modern science of economics, and he is a Fellow of ISCAST.



**KAREN  
HALE**

**KAREN HALE** is a teacher of Science and Religious Education at Ivanhoe Girls' Grammar school and has enjoyed being able to teach and lead curriculum development in both areas. Karen holds degrees in science, education, and theology from Sydney University and Ridley College, Melbourne. Karen is actively involved in her local church, and she is a Fellow and Director of ISCAST.



**MICHAEL  
SMITH**

**DR MICHAEL SMITH** has variously worked in engineering, marine ecology, climate change research, and computer programming. These days he builds complex systems models to improve emergency services. Michael is passionate about exploring interfaces between Christianity, science, and philosophy. He holds a PhD in ecological modelling and attends One Community Church in Blackburn. He is a Fellow of ISCAST.

# PRESENTATIONS

The following papers will be presented either in-person or remotely (via Zoom) and will be in either the “Traditional” format (30 minutes) or the “Lightning Talk” format (15 minutes). Exact times, streams, and links will be available in the master program for registrants. Descriptions below are in alphabetical order by presenters’ last names.



## From an Ontology of Boundaries to a Limit Eschatology: The Techno-Scientific Lifeworld as a Challenge for Christian Living

TRADITIONAL

IN-PERSON

**SPEAKER:** Vassilis Adrahtas (Western Sydney University; University of NSW)

**DESCRIPTION:** My paper focuses on the everyday lived experience of technologically informed and infused personal practices and/or interpersonal relations, and the challenge they pose to Christian faith and commitment—either instinctively, so to speak, or after reflection. My first aim is to emphasise—beyond the importance of Christian theorising about techno-scientific developments and their implications—the real world and the pragmatics of Christian praxis in its constant transaction with the technological. Furthermore, I aspire to explore the positive possibilities that can emerge from within the Christian engagement with the everyday conventions, challenges, and tensions of our technological condition. Finally, I will attempt to put forward these possibilities as a limit eschatology, i.e., a here-and-now experience of the eschaton through the realisation of human limits, that allows transcendence from the ontology of boundaries that techno-science presupposes and entails. My approach is, in general, phenomenological and hermeneutic, drawing heavily on Martin Heidegger and Alfred Schütz, but at the same time builds up extensively through a systematic theology point of view with a particular input from Eastern Orthodox Neo-Patristic perspectives, such as those of Sergei Bulgakov.

**VASSILIS ADRAHTAS** teaches Islamic Studies at Western Sydney University and Ancient Greek Religion and Myth at the University of NSW. His specialisation is in Early Christianity, Patristics, Byzantine Philosophy, History of Religions, and Indigenous Studies.

## Church Responses and Theological Resources for Technological Addiction

TRADITIONAL

REMOTE

**SPEAKER:** Armand Babakhanian (Georgia State University, USA)

**DESCRIPTION:** Technology addictions such as addictions to social media, internet-surfing, online gaming, internet auctions, and internet pornography have become increasingly widespread and talked-about phenomena. I intend to draw upon Christian philosopher Kent Dunnington's work in *Addiction and Virtue: Beyond the Models of Disease and Choice*, Christian theological sources, and addiction science to argue that the church possesses helpful resources for technology addiction prevention. Two causes of technology addiction are boredom and the desire for a non-arbitrary identity. The church may address these two causes of technology addiction in the following two ways. First, the sacrament of reconciliation provides a way of maintaining an integrated and non-arbitrary identity over one's lifespan. Second, the Christian call to union with God or "divinisation" provides a unifying principle of a life-narrative that infuses the content of one's life with enough meaning and purposefulness to prevent boredom. In conclusion, it will be shown that the church is able to combat the growth of technology addiction in a way that is supported by philosophical reasons, theological reasons, and recent addiction science.

**ARMAND BABAKHANIAN** is a graduate student in Georgia State University's masters program of philosophy. He received a Bachelor of Arts in philosophy from Biola University in 2022. His research interests are in medieval philosophy, St Thomas Aquinas, philosophy of religion, and epistemology.

## Fostering Technological Citizenship for the Great Transition: A Missional Challenge

TRADITIONAL

IN-PERSON

**SPEAKER:** Ian Barns (Murdoch University)

**DESCRIPTION:** The term "anthropocene" highlights the impact that human development has on the earth's systems in which human "progress" is associated with socio-ecological costs and cascading disruptions. Haff's term "technosphere" describes humanity's global socio-technical matrix that drives the anthropocene and its crisis. To avoid the disastrous transgression of planetary boundaries, this technosphere needs reshaping. Raskin is right that an emergent "global citizens' movement" is crucial in motivating human society to engage with this transition creatively and in good faith. Following Raskin, I deploy the notion of "active technological citizenship," where "citizenship" involves active engagement beyond passive rights. I also deploy an interpretive approach to technology, one that recognises the deep entanglement of technical and socio-cultural aspects of technological development. In the context of the great transition, this means recognising the co-production of socio-technical systems and the major contexts of state regulation, capitalist enterprise, consumer culture, and the cultural imaginary of modernity. I argue in this context for a recovery of the subversive biblical vision of an engaged eschatological citizenship to motivate and guide Christian communities in the great transition, particularly in engaging with the ambiguous metaphysics of technological modernity central to the crisis of the planetary technosphere.

**IAN BARNES** is a retired academic. He has a PhD in the Social Studies of Science. He was employed at Murdoch University in the School of Sustainability until 2011. Since then he has pursued his interests in theology, technology, and sustainability.

## A Dialogue-Based Christian Theology of Science

TRADITIONAL

IN-PERSON

**SPEAKER:** Neil Bergmann (Lutheran Earth Care; Lutheran Church of Australia and New Zealand)

**DESCRIPTION:** A relatively new direction in science and religion is the development of a Theology of Science (ToS). A ToS should incorporate theological understandings of the scientific method, specific scientific theories and findings, and technological applications of scientific knowledge. Barbour's typology of how science and religion relate suggests categories of: Conflict, Independence, Dialogue, and Integration. A ToS can also be so categorised. A conflict-based ToS gives precedence to claims from revealed doctrine where these conflict with scientific findings. An independence-based ToS defines largely non-overlapping domains where science and theology can legitimately comment. A dialogue-based ToS assumes science and theology can share useful insights. An integration-based ToS sees that both domains address all areas of knowledge and therefore should form a consistent whole. An integration-based ToS has recently been proposed by Tom McLeish: "Science is the participative, relational and co-creative work within the Kingdom of God of healing the fallen relationship of humans with nature." However this seems more aspirational than based on close examination of areas of dispute, and more work in this area is needed. This paper presents steps towards a doctoral research proposal about a dialogue-based ToS which acknowledges that all knowledge is partial, provisional, subjective, and requires multidisciplinary critique.

**NEIL BERGMANN** recently retired as a university academic in Computer Engineering, and he has also recently completed a research Masters in Theology on the topic of eco-theology. He is currently the chair of Lutheran Earth Care, a committee of the Lutheran Church of Australia and New Zealand.

## Misunderstanding Genesis 1–3: When the Translation Train Jumps the Tracks

TRADITIONAL

IN-PERSON

**SPEAKER:** Andrew Brown (Melbourne School of Theology)

**DESCRIPTION:** Genesis is an ancient text that comes from another culture, another region, another time. We are not, and should not be, surprised to discover that it doesn't follow our unconscious rules for recording history or any of our other contemporary modes of speaking or writing. On the other hand, as Christians interested in truth, especially the truth about God, we respect the early part of Genesis as the direction-setting opening of authoritative Scripture. While cultural and historical distance are inevitable challenges when God's communication reaches us through human mediators, some of our problems arise through obscurity in translation, and these are problems we can do something about. This seminar will examine a handful of the more controversial terms in Genesis 1–3 and clarify the meaning of the Hebrew language concealed behind them. This can help us as we work out how, as thinkers interested in scientific realities, we might better interpret these vital chapters of Scripture.

**ANDREW BROWN** is Lecturer in Old Testament at Melbourne School of Theology. He has about a decade of pastoral ministry experience in Baptist churches in Queensland and NSW. Andrew wrote his PhD on the history of Christian interpretation of Genesis 1:1–2:3 up to about 1860. He has a forthcoming book critiquing the use of this history in contemporary creation debates, *Recruiting the Ancients for the Creation Debate* (Eerdmans).

## Did Apostolic Christianity Make the World Safe for Pharmaceutical Innovation?

TRADITIONAL

IN-PERSON

**SPEAKER:** Philip C. Burcham (University of Western Australia)

**DESCRIPTION:** The medical use of "healing plants" is a feature of virtually all human cultures, including the Fertile Crescent civilisations of the ancient world. Yet archaeological investigation has revealed that toxic botanicals with killing properties were as equally valued as were medicinal plants in many ancient societies. Indeed, even the Greco-Roman cultures lurking in the background of NT narratives contained "professional practitioners" expert in using poisons to achieve demonic objectives and eradicate irksome human life. Negative references to these nefarious professionals and their practices within "Apostolic vice lists" of the NT canon (Gal 5:20; Rev 9:21, 18:23, 22:15) suggest Early Church leaders were repelled by the abhorrent usages of botanical substances they encountered during their missionary endeavours. This talk will develop the tentative hypothesis that Christian theology provided moral coherence surrounding "good" ways to employ "bioactive botanicals" that set the scene for future advancement in the pharmaceutical sciences.

**PHIL BURCHAM** is a pharmacology/toxicology educator and researcher at School of Allied Health, School of Biomedical Science, at the University of Western Australia. A lay Reformed Baptist, he has longstanding interests in biblical studies, pharmaceutical science, bioethics, and theology.

## “There’s a Conspiracy Theory in My Church!” Three Helpful Ideas from the 2022 ISCAST Discussion Paper *Who to Trust? Christian Belief in Conspiracy Theories*

TRADITIONAL

IN-PERSON

**SPEAKER:** Nigel Chapman (Melbourne)

**DESCRIPTION:** The research literature on conspiracy theories has grown enormously in the last ten years, but there has been little addressing or resolving the problems that appear in Christian churches, or which are encountered by Christian knowledge professionals. From the recent survey of the team I led, of academic research and popular accounts of the problems caused (<https://iscast.org/conspiracy>), my colleagues and I suggest three useful ideas for understanding and responding to the disputes that inevitably arise. These are: 1) Understand the dynamics of “mainstream” and “fringe” ideas; 2) Treat the source of disputes as an a priori mistrust of “mainstream” ideas and institutions; 3) Emphasise New Testament ethics on accusations and partiality.

**NIGEL CHAPMAN** holds a BSc (CompSci) and an MDiv He is a software engineer and a former Secretary of Surry Hills Baptist Church in Sydney. He was the editor and lead author of the ISCAST discussion paper under consideration.

## God vs the Algorithm: Lead Us Not into Temptation, but Deliver Us from Evil

TRADITIONAL

IN-PERSON

**SPEAKERS:** Cosimo “Cos” Chiera (Natural Intelligence Pty. Ltd; Chisholm Institute for Higher Education College; Eastern College Australia), Tom Edwards (Natural Intelligence Pty. Ltd; University of Divinity; Eastern College Australia)

**DESCRIPTION:** Social media connects like-minded people. Software engineers have created unthinking algorithms that filter vast amounts of online information to provide users with the material that interests them. Although it is understood that social media platforms create “echo chambers” of like-minded followers, Elon Musk’s bid to purchase Twitter exposed the problem by highlighting the widespread use of deceptive “follower bots” (i.e., a chat-bot) and the amoral nature of The Algorithm itself. The result being an “echo chamber” under the influence of a positive feedback loop which exposes, and magnifies, whatever virtues or vices lie within users’ psyche. Taking the oft-quoted maxim “[t]he only thing necessary for evil to triumph is for good people to do nothing” as our starting point, we address how social media can warp the faith stance of passive users by amplifying the voice of presumed experts, isolating people from dissenting opinions, creating “noise,” heightening drama, and manufacturing conflict with an implied “Other.” The amorality of the algorithms that facilitate such strategies amongst passive users is yet to be fully comprehended. Finally, we will discuss the functional features of The Algorithm and psychological techniques that can be used to manage faith extremism in a technological world.

**COSIMO CHIERA** trained as a mathematician at RMIT University. His current interests include data analytics (big data), A.I., and behaviour modelling. Currently, as co-founder of Natural Intelligence Pty. Ltd, he investigates the role of virtue for enhancing strategic communication and organisational ethics.

**TOM EDWARDS** trained in behavioural neuroscience and currently works in mental health. Currently, as co-founder of Natural Intelligence Pty. Ltd, he investigates the role of virtue for enhancing strategic communication and organisational ethics. He also is Chair of the Christian Research Association, an Honorary Research Associate, University of Divinity, and an Honorary Research Fellow, Eastern College Australia.

## Paradise and Technology: The Next Best Thing

TRADITIONAL

IN-PERSON

**SPEAKER:** Doru Costache (ISCAST Research Director; Sydney College of Divinity)

**DESCRIPTION:** The scriptural story of paradise and its aftermath (Genesis 2-4) suggests that the transition from non-technological life to civilisation overlaps with the story of sinful humankind. As the nadir of this process, Genesis 11 depicts technological civilisation run amok in the story of the tower, a tale of arrogance leading to disaster. Against this backdrop, an early Christian author, Gregory the Theologian (d. ca 390), contrasted the paradisaical, non-technological life and the fallen world of arts and crafts, deploring human dependence on tools and technology. In turn, the early monastic movement, especially in the eremitic tradition, viewed itself as embodying paradise and accordingly used tools in limited fashion. Recent archeological discoveries indicate a different course of history: humanity, Neanderthal and modern alike, has always depended on technology to survive; before tools, humanity was prey. Yet paradisaical pockets seem to dot the map from time to time—as the lives of the saints might convince us. But is it only a matter of choosing either paradise or technological civilisation? Maximus the Confessor (d. 662) believed that the two could and should cross paths. It is these possibilities that I wish to discuss.

**DORU COSTACHE** is the ISCAST Research Director and an Associate Professor at the Sydney College of Divinity. He is also an Honorary Associate in Studies in Religion at the University of Sydney and author of *Humankind and the Cosmos: Early Christian Representations* (2021).



## Christianity's Earliest Encounters with the Ancient Techno-Scientific China: Critical Lessons from the "Luminous Religion" (Jingjiao) Approach

TRADITIONAL

REMOTE

**SPEAKER:** Jacob Chengwei Feng (Fuller Theological Seminary)

**DESCRIPTION:** This paper investigates the earliest Christian encounters with ancient China through the missionaries of the Church of the East in the early seventh century. Joseph Needham argues that China was one of the world's most advanced ancient societies in terms of science and technology. It was also a time when Buddhism, Daoism, Confucianism, Manichaeism, and Zoroastrianism contributed to a pluralistic Chinese society. This paper attempts to answer questions such as the following: How did the Christian missionaries of the "Luminous Religion," or Jingjiao, and their Chinese converts engage with the techno-scientific China, given their marginalisation compared to other religions? Were their efforts successful? What critical lessons can we learn from their successes and failures? This paper argues that, being equipped with advanced Greek-Byzantine knowledge and skills in medicine, horology, architecture, astronomy, and mechanics, the Church of the East's missionaries boldly and creatively engaged with the ancient techno-scientific and pluralistic China on pneumatological grounds. The paper draws on Jürgen Moltmann's likening of the Chi (or Qi, Ch'i) in the Chinese classic Dao De Jing to God's ruach, proposing this concept as a crucial bridge towards a constructive Chinese theology of technology and science for the pluralistic world in the third millennium.

**JACOB CHENGWEI FENG** is a Fellow at Oxford Interfaith Forum, and PhD candidate in Theological Studies at Fuller Theological Seminary. His research interests include theology and science, interfaith dialogue, Chinese theology, and systematic theology.

## Recovering Genesis 1 from Societal Misunderstanding

TRADITIONAL

REMOTE

**SPEAKER:** Alan Dickin (McMaster University, Ontario, Canada)

**DESCRIPTION:** Misunderstandings about the meaning of Genesis Chapter 1 continue to be a source of confusion in the church and society. Some have claimed that Genesis 1 describes geological history, but there are numerous scientific contradictions to this view. Others have argued that the days of creation are a literary device, but have not offered satisfactory reasons for the watery starting conditions or the order of creative events. A new solution sees Genesis 1 as a series of visions inspired by the "recreation" of the earth after Noah's flood. The height of a major flood-storm is disordered in three important ways: chaotic darkness or semi-darkness, a chaotic rain-filled atmosphere, and chaotic muddy flood-waters. The creation story brings order out of disorder in each of these realms, before populating them in the same order with heavenly bodies, with birds and fish, and with animals and humans. This model provides a new framework for the order of creative events in Genesis 1 and explains its dramatic inspiration and its non-scientific viewpoint in simple terms.

**ALAN DICKIN** (DPhil, Oxford), is Emeritus Professor of Geology at McMaster University, Ontario, Canada, where he worked in the School of Earth Environment and Society. His books include *A Scientific Commentary on Genesis 1–11* (2015) and *From the Stone Age to Abraham: A Biblical History of the Ancient World* (2021)

## Christianity and Transhumanism Need Each Other

TRADITIONAL

IN-PERSON

**SPEAKER:** Jonathan Gunnell (Christian Transhumanist Association)

**DESCRIPTION:** My aim is to demonstrate Christianity and Transhumanism share many goals and should together articulate the future possibilities for humanity in a future of human renewal and redemption. Transhumanism is an intellectual and cultural movement, asserting that future humans can and should be enhanced using emerging technologies to greatly increase our physical, intellectual, and cultural capabilities, to reform our human nature, and to extend our lifespan. Transhumanism began as a humanist and anti-religious enterprise, challenging Christianity's relevance. Starting with Scripture and church fathers, the paper will point to the Christian expectations of the future state of humanity, both in this life and in a future we can barely conceive. Christianity brings a wealth of insight to Transhumanist themes, which will be introduced to a Christian audience. Christian insights in ethics and epistemology will be shown to be a missing vital underpinning for Transhumanism. From the printing press to the internet and the human genome, Christians have been at the forefront of invention and early adoption of technology. Christians must remain at the forefront of articulating the future of humanity as medical and technological revolutions challenge and extend the future form of humans.

**JONATHAN GUNNELL** is an engineer with over 30 years of experience leading infrastructure and minerals processing projects in Australia and overseas. He currently works in an innovation centre with emerging technologies. He is the Vice President of the Nashville-based Christian Transhumanism Association.

## Panpsychism and the Possibility of Robotic Intelligence

LIGHTNING TALK

REMOTE

**SPEAKER:** Nicola Hoggard Creegan (New Zealand Christians in Science, Aotearoa New Zealand)

**DESCRIPTION:** The naturalism in all its forms which lies behind modern science has left us often bereft of any articulate frameworks beyond the physical, even outside of science. This has muted all our religious language and especially that which relates to life after death or matters of the soul, however that is defined. Apart from substance dualism, panpsychism is a coherent alternative to this agenda. Panpsychism as a way of representing reality is a small but growing challenge to the status quo. But how does it help or hinder us in our predictions around the possibility of machine intelligence?

**NICOLA HOGGARD CREEGAN** is co-director of NZ Christians in Science. She has a PhD in theology from Drew University, NJ, and undergraduate degrees in mathematics and biology. She has taught theology in the US and in New Zealand. She is the author of *Animal Suffering and the Problem of Evil* (2013).

## Is Human Ageing a Creational “Good”? Addressing Challenges and Providing Support

TRADITIONAL

IN-PERSON

**SPEAKER:** David Hooker (ISCAST Publications Director)

**DESCRIPTION:** The worldwide surge in the number of elderly people presents enormous economic and ethical challenges, while ageism, age-aversion, and age-related anxiety reveal a humanity struggling to accept ageing. Unfortunately, traditional Christian theology is unsure how to respond because of polarised positions on the core idea of whether human ageing is a creational “good”: is ageing of God or an effect of sin in the world? This paper outlines three influential theological challenges to this core idea and addresses in more detail one of those challenges: that natural physical death, as the precipitant of ageing, is the penalty for sin. An exegetical analysis and dismissal of this challenge leaves open the possibility that human ageing is a creational good. This paper then integrates the science of ageing to support the core idea. Molecular biology invites theology to view ageing as a symphony of coordinated processes built into the human body. The concept of human ageing as a creational good can give Christian theology a clearer, more cohesive, and constructive voice to society, to medicine, to Christian ethics, and to the church, and it can build a stronger foundation both for embracing life and for giving glory to God in our older years.

**DAVID HOOKER** is Publications Director at ISCAST, teaches in biomedical science at Monash University, and has pastored an evangelical church in Melbourne. He has higher degrees in both science and theology. His recent PhD through the Australian College of Theology is a science-theology synthesis on human ageing.

## Human or Machine Cosmos? Lewis Mumford in Dialogue with Stanley Kubrick and Terrence Malick

LIGHTNING TALK

REMOTE

**SPEAKER:** Christopher Howell (Elon University)

**DESCRIPTION:** The philosopher of technology Lewis Mumford took issue with the common definition of humanity as a “tool-using animal” (*Homo faber*). Rather, he preferred to see people as language and symbol users. His concerns that a post-human, tool-emphasis would fundamentally change human nature find a perfect illustration in Stanley Kubrick’s *2001: A Space Odyssey*. Conversely, however, Terrence Malick’s *The Tree of Life* represents both a Christian response to *2001* and an anthropocentric affirmation of humanity’s uniqueness, especially our use of language and symbols. Comparing these films through Mumford’s eyes offers a cosmic vision of the nature of humanity and machine.

**CHRISTOPHER HOWELL** is an adjunct assistant professor of religious studies at Elon University. He holds a PhD in Religion from Duke University and a Masters in Theological Studies from Duke Divinity School.

## What Does Recent Scientific Research into Contemplative Practices Have to Contribute to the Christian Meditation Tradition?

TRADITIONAL

IN-PERSON

**SPEAKER:** Cullan Joyce (University of Melbourne; University of Divinity)

**DESCRIPTION:** Scientific research into contemplative traditions promises to revolutionise how science understands religious traditions. Unfortunately, Christian traditions and practices have not featured prominently, given their preference to explicate contemplation using religious categories. This led to mindfulness practices dominating recent contemplative research. However, research on Christian practices is becoming more fine-grained (Hwang, 2018). Drawing on Maximus the Confessor's *Centuries on Love*, I show that his descriptions of ascetic practice presume most, if not all, of the standard cognitive processes commonly utilised by contemplative research. This means that the structures of a foundational Christian contemplative tradition are demonstrably supportive of scientific research into contemplative practices. To demonstrate this claim, I apply categories from Van Dam et al. (2017) to some of Maximus' key texts and terms. I show how the ancient texts provide evidence of various forms of meditative introspection, proving that Christian contemplative traditions are underpinned by the foundational cognitive processes presumed by contemplative research. The interpretations introduced in this paper can help Christian researchers align with contemplative sciences in an ongoing way.

**DR CULLAN JOYCE** is an academic who has been working at the intersection of contemporary and ancient traditions for many years. Recently, he has supported the work and research of the newly founded Contemplative Studies Centre at the University of Melbourne. He also teaches philosophy and Christian Spirituality at the University of Divinity, Melbourne.

## Transhumanism and Our Garments of Skin

TRADITIONAL

REMOTE

**SPEAKER:** Christopher C. Knight (The Institute for Orthodox Christian Studies, Cambridge, UK)

**DESCRIPTION:** A theological concept that illumines all transhumanist proposals is that which, in the patristic era, saw the empirical world as not conforming to God's original or ultimate intentions for the created order. This will have a major impact on our theological assessment of the hope of immortality intrinsic to some of transhumanism's more utopian versions because it points to the failure of these versions to see death from a theological perspective: as a "return" to the natural through the casting off of the "garments of skin" that characterise our life in the present world. The term "transhumanism" is, however, used of a variety of approaches and goals, so that no single critique will be applicable to all. If the therapeutic aims of modest transhumanist projects can be affirmed, other projects—less modest but still not utopian—may be more questionable because of considerations that arise from both the anti-dualism of Christian anthropology and the scientific concept of embodied cognition.

**REV. DR CHRISTOPHER C. KNIGHT** is an Orthodox priest and a Senior Research Associate of The Institute for Orthodox Christian Studies (Cambridge, UK). He has a background in astrophysics and theology. He is the author of *Eastern Orthodoxy and the Science-Theology Dialogue* (2022).

## Secularising the Eschaton: Christian Theology in Response to Transhumanism

TRADITIONAL

IN-PERSON

**SPEAKER:** Matthew McTeigue (Charles Darwin University)

**DESCRIPTION:** Transhumanism advocates an enhancement or transcendence of the human condition via modern technology, the predominant rationale being a refusal to accept the limitations associated with human biology such as death, disease, or physical limitation. The most profound philosophical and theological implication of the movement is that the application of advanced technology can create people who are not only biologically superior and immortal, but also no longer classified as *Homo sapiens*; they are posthuman. Also interesting is that, while not traditionally religious in its perspective on human nature, transhumanism tends toward an anti-reductionist and partly immaterial view of the person which might transcend the physical and survive the death of the body. This talk will consider the above in light of Christian perspectives on the soul and eschatology, in particular enquiring as to whether transhumanism is but a secularised form of eschatology and an implicit reiteration of ancient Gnosticism. Consequently, recovering a properly Christian understanding of the soul may prevent a Gnostic desire to escape embodiment or to dissolve the richness of human being.

**MATTHEW MCTEIGUE** holds bachelor degrees in science and biomedicine, with honours, and a research masters degree. Currently, he is a PhD student at Charles Darwin University, researching embodied cognition and theoretical biology.

## Data Privacy and Digital Surveillance

LIGHTNING TALK

IN-PERSON

**SPEAKER:** Carl Michael (Association of Professional Futurists)

**DESCRIPTION:** Technology is seen as the key to a positive future. However, the evidence can be to the contrary in many countries and, in some ways, in our own. If information technology and cybersecurity proceed on their current joint trajectory, then the ongoing impact of the digital revolution may not be truly dignity-affirming and moral in its outcomes. This will be to the detriment of individuals and society. Therefore, Christians need to add their voices to rightful concerns about the assumptions that underlie public policy development for future technologies.

**CARL MICHAEL** works as a Chief Technology Officer addressing corporate cybersecurity, data privacy, strategy, governance, and risk management. He has an MBA in Technology Management and a Master of Strategic Foresight (Future Studies). He is an Emerging Fellow of the Association of Professional Futurists and a Senior Member of the Australian Computer Society.

## Thinking Christianly about AI and Transhumanism: An Introduction

TRADITIONAL

IN-PERSON

**SPEAKER:** Chris Mulherin (University of Divinity; ISCAST Executive Director)

**DESCRIPTION:** “Young people today can expect to live forever, but AI will run the world.” At least that is the view of some techno-optimists. In this introduction to the use and abuse of current and future technology, after defining the terms, I will outline some of the possibilities arising from artificial intelligence and transhumanism. In both fields, I will point to some ethical concerns, which are shared by Christians and others. I will finish with specifically Christian theological concerns, mainly about the transhumanist vision of a future humanity. The talk will be pitched at non-experts (“What is transhumanism?” they might ask). For those who want to go deeper, there are various other COSAC presentations to choose from.

**CHRIS MULHERIN** is Executive Director of ISCAST and teaches philosophy at Catholic Theological College (University of Divinity). He has a background in engineering, is an Anglican minister, and wrote his DTheol on ways of knowing in science and in theology. He is the author of *Science and Christianity: Understanding the Conflict Myth* (2019).

## Reenchanting Nature in a Techno-Scientific World

TRADITIONAL

IN-PERSON

**SPEAKER:** Mick Pope (Whitley College)

**DESCRIPTION:** The scientific revolution reduced the world around us to a machine, with Francis Bacon’s dictum “knowledge is power” informing the purpose of science as our power to manipulate this machine to our own ends. However, Dipesh Chakrabarty argues that the Anthropocene—the human age—reminds us that our agency is not unique. Agency in the Earth system, he observes, is distributed in “Earth processes, technology, humans, and other species.” Human hyperagency as Ewa Bińczyk has defined it, is our ability as a species to change the climate, while still being “enmeshed in the process of planetary metabolism.” This metabolism is turning against us, as the nurturing “mother Earth” becomes the “uncontrollable Other.” This paper examines the Hebrew Bible view of “mother Earth” as divinely infused with agency, rights, and responsibilities. The Priestly creation account of Genesis 1 and the Holiness Code of Leviticus 17–26 present a view of the world as our co-created partner to which we have relationship and responsibilities that transcend our exercise of power on the world. Instead, we are to navigate through the Anthropocene together.

**MICK POPE** is a lecturer in meteorology and an adjunct at a number of theological institutions. He has a background in mathematics, meteorology, and theology, and wrote his MPhil on human and nonhuman agency in the Hebrew Bible as applied to the Anthropocene.

## Who's Afraid of Conspiracy Theories? Responding to the ISCAST Discussion Paper

LIGHTNING TALK

REMOTE

**SPEAKER:** Mark Ridgeway (ISCAST Associate)

**DESCRIPTION:** This talk will respond to the ISCAST discussion paper *Who To Trust? Christian Belief in Conspiracy Theories*. If conspiracy theories highlight a problem of trust then, like all good scientists, we cannot ignore the other side of the equation. Information, data, and facts have become weapons in the emerging power plays of the contemporary theatre of techno-science. How do we work out what parts of institutional science cannot be trusted and which parts are worthy of trust? And, having asked that question, where does that leave the discipline of science as a search for the real?

**MARK RIDGEWAY** is a retired information engineer who now spends his time volunteering where there is a need. His career spanned 40 years in the Information Technology and Innovation space with an emphasis on understanding how confidence works.

## Can an Empirical Scientist Pray at All?

TRADITIONAL

IN-PERSON

**SPEAKER:** Charles Riding (Presbyterian Church of Australia)

**DESCRIPTION:** Prayer is not a priority for many Christians, even though we are commanded to “pray without ceasing” (1 Thess 5:17). Rudolph Bultmann (in)famously said: “We cannot use electric lights and radios and, in the event of illness, avail ourselves of modern medical and clinical means, and at the same time believe in the spirit and wonder world of the New Testament”—a world that includes a God who does things in answer to prayer. Should Christians all become deists instead and, like Paul Tillich, abandon prayer for meditation? This paper seeks biblical and scientific reasons to answer the following three questions in the affirmative: Can God answer prayers in a universe governed by the laws of nature without breaking them? If I am sick, is praying to God to heal me consistent with taking the prescribed medications? If I were sick and recovered, was my healing due to my prayers to God (or was it only due to the medications)? The path explored here is that God, being steadfast and reliable, will do as he promised and answer Christians’ prayers as reliably as he upholds the laws of nature. My hope is that this fact will encourage Christians to pray more.

**REV. DR CHARLES RIDING** is a retired minister of the Presbyterian Church of Australia, having ministered in six parishes over forty years. Before that he taught mathematics and science, particularly physics, at all high school levels. He has published several articles in *Reformed Theological Review*.

## Nothing Is Good or Bad, but the Way of Thinking about It Makes It So!

LIGHTNING TALK

IN-PERSON

**SPEAKER:** John Roodenburg (Monash University)

**DESCRIPTION:** At Melbourne and Monash Universities we have been researching individual differences in Ways of Thinking (WOT). We have developed adult and children’s WOT inventories. Philosophy, theology, religion, science, and psychology are all disciplines principally concerned with the content of what we know. Given the same content, there are differences in how individuals think, captured by the WOT. These individual differences have practical ramifications for how we learn, come to accept reality, form and practise our faith, and even impacts mental health. The WOT model will be presented, along with a link to a brief online adult questionnaire.

**JOHN ROODENBURG** retired after 30 years as a registered practitioner in country Victoria, followed by 20 years at Monash University as Director of the Krongold Clinic and leader of the Educational and Developmental Psychology higher degrees programs, responsible for instituting doctoral research degrees. He is a Fellow of the Australian Psychological Society, a Fellow of the College of Educational and Developmental Psychologists (of which he was National Chair for four years), and a Fellow of the College of Counselling Psychologists.

## Christianity and Psychology: Friend or Foe?

LIGHTNING TALK

IN-PERSON

**SPEAKER:** John Roodenburg (Monash University)

**DESCRIPTION:** Despite years of scholarship to the contrary, a popular perception is maintained by many Christians and non-Christians alike that psychology and biblical theology are incompatible. How can we best promote an understanding of their intersection and an appreciation of how one can serve to augment the other without fear of compromise? A brief model for helping individuals discern values collisions will be proposed with the aim of fostering a discussion.

**JOHN ROODENBURG** retired after 30 years a registered practitioner in country Victoria, followed by 20 years at Monash University as Director of the Krongold Clinic and leader of the Educational and Developmental Psychology higher degrees programs, responsible for instituting doctoral research degrees. He is a Fellow of the Australian Psychological Society, a Fellow of the College of Educational and Developmental Psychologists (of which he was National Chair for four years), and a Fellow of the College of Counselling Psychologists.

## Greek Orthodox Views on Religion and Technology: “The Beginning of a Beautiful Friendship”?

TRADITIONAL

REMOTE

**SPEAKER:** Sandy Sakorrafou (Institute of Historical Research/ National Hellenic Research Foundation, Greece)

**DESCRIPTION:** Until recently, any concerns of the Greek Orthodox circles regarding technological advances usually referred to the latest biomedical achievements and their impact on everyday life, including bioethical issues. However, the Covid-19 pandemic revived older pastoral and theological questions on the proper ways of worship and communication of the gospel message. Technology once again came under the spotlight, with virtual tools providing people with new forms of meeting, while maintaining physical distancing and thus preventing the spread of the virus. This paper studies representative texts from a variety of publications (books, journals, newspapers, and religious websites) in order to grasp Greek Orthodox theological and pastoral attitudes towards technological innovation. I shall argue that these stances are reminiscent of earlier responses to advances in technology, such as the discussion on the use of the radio and television for broadcasting liturgical services.

**SANDY SAKORRAFOU** is a Postdoctoral Researcher at the Institute of Historical Research/National Hellenic Research Foundation. She holds a PhD in History and Philosophy of Science (University of Leeds, UK) and she is currently pursuing a Master's degree in “Orthodox Christian Theology and Religious Pluralism” at the Hellenic Open University. She taught at the Hellenic Open University (2007–2020).

## Humanity's Best Friend? An Ethical Reflection on Robotic Dogs and the Militarisation of Creatures

TRADITIONAL

REMOTE

**SPEAKER:** Andrew Shepherd (University of Otago, Aotearoa New Zealand)

**DESCRIPTION:** Throughout human history, technological developments have often been linked to martial motivation, resourcing, and application. This continues to be the case. Recent advances in robotics are closely tied to military funding and function. How should we reflect ethically upon the innovation of robots engineered in animal form, and specifically, robotic dogs designed for military purposes? What does this new form of the militarisation of creatures reveal about our contemporary conception of the animal-human relationship? What are the implications of this technology for our animal ontology? How might this technology reshape the millennia-old relationship that has existed between *Homo sapiens* and our canine kin? Drawing upon the Christian ethical tradition, this paper engages with such questions and explores possible responses to safeguard our oldest animal friendship.

**ANDREW SHEPHERD'S** varied working life has included involvement in theological education and Christian leadership formation, participation in intercultural and environmental education, and leadership roles within non-profit organisations. His current research interests include environmental ethics and climate change, violence and militarism, and surveillance capitalism. His publications include *The Gift of the Other: Levinas, Derrida, and a Theology of Hospitality* (2014), and edited volumes *Creation and Hope: Reflections on Ecological Anticipation and Action from Aotearoa New Zealand* (2018) and *Taking Rational Trouble over the Mysteries: Reactions to Atheism* (2013).

## De-Extinction and the Quest for Victory over Death

TRADITIONAL

REMOTE

**SPEAKER:** Lisa Sideris (University of California, Santa Barbara, USA)

**DESCRIPTION:** De-extinction technologies create a sense of hope that past wrongs can be righted through sophisticated genetic technologies. With revitalised efforts to “resurrect” the thylacine (or Tasmanian tiger), de-extinction is again making headlines. Ethical issues surrounding de-extinction are more complicated than they appear, however, and their complexity is masked by religious language of miracles, resurrection, sin, salvation, “playing God,” and allusions to biblical figures and events, notably, the raising Lazarus and Jesus’ ultimate victory over death. What should we make of secular scientists’ turn to biblical sources to authorise the quest to bring extinct creatures back to life? How does this religious framing contribute to distorted claims on behalf of de-extinction?

**LISA SIDERIS** is Professor of Environmental Studies at University of California, Santa Barbara. She is author of *Consecrating Science: Wonder, Knowledge, and the Natural World* (2017) and *Environmental Ethics, Ecological Theology, and Natural Selection* (2003), and she is co-editor of a collection of interdisciplinary essays *Rachel Carson: Legacy and Challenge* (2008).

## Lessons for Christians from African Sci-Fi

TRADITIONAL

IN-PERSON

**SPEAKER:** Danielle Terceiro (Alphacrucis University College, Sydney)

**DESCRIPTION:** This talk will consider recent “Africanfuturist” graphic novels, including *LaGuardia* (2019) and the Shuri Marvel-Verse series of comics (2018–2019). What ideas about humanity and its engagement with technology and science are evoked through word and image in these texts? And how could these ideas help us to think as Christians about the future and particularly about bioethical issues? “Africanfuturism” is a term used by the Nigerian-American author Nnedi Okorafor to capture an emerging genre of speculative fiction. She defines it this way: “Africanfuturism is concerned with visions of the future, is interested in technology, leaves the earth, skews optimistic, is centered on and predominantly written by people of African descent (black people) and it is rooted first and foremost in Africa.” Join us for an interesting talk and discussion.

**DANIELLE TERCEIRO** is a school teacher and a PhD candidate at Alphacrucis University College, completing her PhD by publication. Her research considers how meaning is made through the interaction of word and image in multimodal texts such as picture books and graphic novels.

## Engaging with Fellow-Christians Who Are Science Deniers

TRADITIONAL

IN-PERSON

**SPEAKERS:** Andrew Wood (Swinburne University), Malcolm Binns, Anna Clarke, Bruce Cleaves

**DESCRIPTION:** This paper explores why it is that a significant proportion of faith communities are fearful or hostile to advances in technology, and/or subscribe to Conspiracy Theories (CTs). It will also reflect on effective ways to build bridges, relying on respect and warmth, rather than “setting straight.” It will draw on our group experience as we met several times during 2021 to provide material for the [Working Group ‘Christian Belief in Conspiracy Theories’](#) in which we shared reflections on personal experiences of engaging with church members and with the wider community. The types of contexts included climate change, Covid vaccination and 5G roll-out. We considered particularly the concepts of *FLICC* (Fake experts, Logical fallacies, Impossible expectations, Cherry-picking evidence, and Conspiracy theory belief) in engaging with science deniers, as well as faulty views of scriptural interpretation and a frank admission that scientists occasionally “behave badly.” We listed several practical suggestions for Christian leaders and Christians generally on how to prevent disagreements over scientific advances from becoming divisions and to prevent wrong choices leading to harm. The following captures our approach: “in the midst of our struggles for justice and truth, to confront one another without hatred or bitterness, and to work together with mutual forbearance and respect” (*A Prayer Book for Australia*; Anglican Church of Australia).

**ANDREW WOOD** has retired but continues as an Adjunct Professor at Swinburne University. His area is Biophysics and has ongoing projects at Swinburne and with WHO. He lives in West Gippsland and worships at Warragul Anglican Church.

**MALCOLM BINNS** has taught science/chemistry at Christian and secular schools in NSW, where apparent conflicts between science and Christianity have often been a topic of conversation. He has a PhD in Organic Chemistry and Graduate Diplomas of Education and of Divinity. Malcolm worships at Pymble Anglican Church.

**ANNA CLARKE** is a retired registered nurse with ongoing interests in Public and Community Health. She worships at St Matthews Anglican church in Wanniasa ACT. She has been married to Jonathan for 40 years and they have two married daughters and two granddaughters. She is originally from the Netherlands.

**BRUCE CLEAVES** is semi-retired and with his wife, Daphne, run a small Private Speech Pathology business in the North Burnett, Queensland. He has qualifications in Medical Laboratory Science, various qualification in Agriculture including a Master of Philosophy. Bruce & Daphne worship at Peace Kumbia/Taabinga Lutheran Church in Rural Queensland.

## Ian Barbour’s Four Models of Science and Religion as Applied to Science Fiction

TRADITIONAL

REMOTE

**SPEAKER:** Mark Worthing (MST Frontier School of Mission; St Peter’s Lutheran Church, Port Macquarie)

**DESCRIPTION:** This presentation will examine Barbour’s well known four models of relating science and religion to see if they can also be applied to the imagined worlds of science fiction. As science fiction has long been the vehicle for futurists to imagine worlds in which science and technology have brought great advances, the question of how religion is portrayed in these worlds tells us not only what futurists might be imagining, but, in the case of popular sci-fi, what models of science and religion are influencing current and future generations of thinkers. The talk will suggest that with some necessary adaptations for the altered context of imagined worlds, Barbour’s models work very well when applied to the portrayal of religion in scientifically advanced, fictional worlds.

**MARK WORTHING** is a Lutheran pastor and a Fellow and Director of ISCAST. He has a doctorate in the history and philosophy of science (Regensburg) and a doctorate in foundational and ecumenical theology (Munich). He has published several books relating to science and faith, including *Unlikely Allies* (Morning Star and ISCAST, 2019). He also publishes in the area of sci-fi and fantasy.