



PréCis

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date**



**2018 Southern Conference
Saturday 10th November
Redland Church, Bristol
More details in the
Summer PreCiS**

Volunteer at New Wine!

Would you like to help
run the CiS exhibition
stall at New Wine this
summer?

Week 1: 28th Jul - 3rd Aug

Week 2: 5th - 11th Aug

**If you're interested
please contact Emily
for further
information
emily@cis.org.uk**



The Eagle Nebula
(Photo courtesy of Nasa)

Christianity and the Cosmos: an interview with Dr Jennifer Wiseman

By Jelmer Heeren, Philosophy student, University of Amsterdam.

Dr. Jennifer Wiseman is an astronomer, author, and speaker. She studies the process of star and planet formation in our galaxy using radio, optical, and infrared telescopes, and is also interested in national science policy and public science engagement.

When and how did you first know you wanted to become an astronomer?

I grew up in the rural and beautiful Ozark mountain region of the central U.S., on a cattle farm spread across meadows, forests, valleys, ponds, and streams, with nearby clean lakes and rivers to play in as well.

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So I felt very close to nature my whole life, and always enjoyed exploring the natural world. I also enjoyed looking up at the dark sky filled with bright stars at night, and wondering what it would be like to explore the universe.



I enjoyed science and mathematics classes in school, but I also enjoyed music and athletics and other subjects as well. When I entered my university studies at the Massachusetts Institute of Technology, I knew that I wanted to do something space-related, but I wasn't sure what. I chose physics as a major because I like physics and I knew I could apply physics to many kinds of space-related engineering or science degrees.

When I took an astronomy class during my second or third year at MIT, I began to realize how fascinating it is to apply physics to understanding the nature of the solar system and the entire universe. That is when I knew I wanted to be a part of the field of astrophysics.

Astronomy and your Christian faith are two intertwining themes in your life. Do they strengthen each other?

Absolutely. For me, Christian faith came first, from childhood. So my life of faith has been a continual learning and growing experience of following Christ and seeking Him more deeply in each new situation, challenge, and phase of life.

I believe science has greatly enriched my faith, by showing me the incredible magnitude, beauty, and activity in the universe, with the largest and smallest imaginable scales of activity intertwined by the laws of physics in intriguing ways.

This, along with the enormous timescales involved in the unfolding of the universe, has deepened my awe of creation and my humility before the Creator. The flip-side of this intertwining is the daily reality in the Christian life of walking personally with God. This means seeking and communicating with God in prayer, and seeking God's help and wisdom in all aspects of life, including scientific pursuits, and in the daily tasks and personal interactions that aren't usually as glamorous as the big ultimate questions of the universe.

During your career, have there been instances where something changed in your faith which subsequently changed the way you did science, and/or vice versa?

I don't think anything in my faith has changed the mechanics of how I carry out scientific work. But it does influence how I make choices and set priorities. I'm constantly reminded that God deeply loves each person with whom I interact, and so my scientific interactions aren't only about scientific progress and products; they also concern the welfare and value of all the people I interact with in the scientific sphere, whether that be colleagues, students, or the interested public.

You've worked with several kinds of telescopes throughout your career. Can you describe some of your work and your favourite discoveries?

Well that is a hard question to answer, because there are so many amazing discoveries in astronomy these days! Perhaps most notable for me early on was the surprise discovery of a comet during a student intern experience I had at an observatory. Wow!

For much of my own subsequent research, I've worked with radio telescopes, and also

with telescopes sensitive to visible and infrared light. My research focuses on how stars are continuing to form in pockets of dense, interstellar gas. Our Milky Way galaxy, and other galaxies like it, is filled with clouds of gas and dust, and it is in the densest regions of these clouds that new stars can actually form through the collapse of clumps of dense gas.

We now know that planets form right along with stars, and that in fact planets are rather common throughout the galaxy! We didn't know of any planets outside the solar system when I started graduate school. But now, years later, with advances in telescope technology, we know of thousands of planets orbiting stars other than our Sun. These "exoplanets" are intriguing, and a hot topic of study; astronomers are striving to understand the nature of these distant planets.

We want to know if there could be habitable worlds filling the universe! But overall, I think my favourite astronomical image is the "Hubble Ultra Deep Field", an image of deep space that reveals thousands of galaxies filling a tiny field of view. Basking in this image is a way of getting a visual sense of the sheer enormity, richness, and possibilities of the universe.

In talks you have emphasised the importance of having a sense of awe at God and his creation. King David famously wrote that "the heavens declare the glory of God, and the sky above proclaims his handiwork" (Psalm 19:1, ESV). In what way do the Bible and astronomy relate in creating this sense of wonder?

I think modern astronomical discoveries can enrich the believer's sense of God's power, creativity, patience, faithfulness, and love of life. While science only evaluates directly the natural processes in the physical world, and



shouldn't be confused with philosophical or theological conclusions, the findings of scientific exploration can truly inform and enrich the faith of one who believes in the God revealed in Scripture.

I'm most amazed at how the universe itself has evolved over billions of years from a burst of energy and inflation to an enormous web of dark matter and galaxies full of stars and planets, including at least one with life. Beyond the science, through eyes of faith, this progression can sing of great purpose and beauty.

However, there are also difficult issues to confront, like suffering from natural causes on planet Earth, or the long-term future of the universe.

Previously you have also been involved in research surrounding exoplanets (i.e. planets orbiting another star). Do you have any thoughts on the theological ramifications of future discoveries of (intelligent) life?

It wouldn't surprise me if the universe is filled with life, at least simple life. To me, that would be consistent with the God of Scripture, who loves life and has filled the Earth with an incredible, robust array of life capable of evolving along with changing environments.

On the other hand, most planets we've detected so far seem as though they'd be rather hostile places for stable, advanced life. We still need to do a lot more studies of this. But theologically, for Christians the question always comes down to whether the

incarnation of God in the person of Jesus Christ on planet Earth would need to be repeated on other planets for other advanced life forms, and whether other life forms would need this kind of redemption. I found out that, for reasons I find hard to imagine, theologians have been contemplating this question, with differing conclusions, for hundreds of years! All Christians can at least affirm, in any case, that all things are created “through Christ and for Christ” (Colossians 1:16). That would include alien worlds and any alien life, through the natural processes God has ordained.

In your opinion, what role should science play in the life of the church?

Since science and technology affect every area of our lives, I’d say that church should be a place where discussions involving science are welcomed, well-informed, and helpful.

Discoveries in astronomy, biology, and many fields of science can be integrated into congregational worship and praise. Discussions of the implications of science and related ethical questions should be discussed in church classes and book study groups, by well-informed leaders. Scientific knowledge and connections should inform and enrich church outreach including environmental stewardship efforts and ministries to aid health care and agriculture for the poor. And young people should be encouraged to consider scientific and technical careers as being a wonderful path of serving God.

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If you had a piece of advice for a Christian starting in science (or astronomy more specifically), what

would your advice be?

Astronomy is exciting, with lots left to discover and learn! So we need more people interested in the field, including scientists, engineers, computer programmers, writers, teachers, and more.

I’d advise young people to choose a wide variety of science and mathematics classes in school, to find internships for a broad range of experiences during the university years, and also to find encouragement and fellowship with other Christians who are pursuing science-oriented lives and ministries. “Christians in Science” is a good place to start!

Jennifer’s interview, and many others, can be found on the CiS web magazine - Connect.cis.org.uk



Science and Faith: a view Up, In and Out

The 2018 Student Conference report

By Abigail Motley, DPhil student, University of Oxford

Having not attended a CiS conference before, it was with excitement and a few nerves that I cycled to the King’s Centre on a mild (comparatively speaking!) Saturday morning in February. The location of the student conference was particularly convenient for me, and I was impressed as

I made tea and chatted to the other delegates to hear that some had come all the way from Manchester...that morning!

Putting my early morning grumbings into perspective, I headed into the talks. Emily provided a warm welcome, informing us that we were welcome to sit on the floor if it helped us feel more comfortable! The relaxed and friendly atmosphere continued as Emily invited up Marta Berbel Gallego, president of the newly formed CiS student group at UCL, to introduce the speakers.

Our first speaker, Professor Ard Louis, introduced his recent documentary, “*Why are we here?*”, on which he collaborated with British film-maker and atheist David Malone.

We watched several clips, touching on themes of narrative and truth-seeking. Can narrative provide us with truth? Alternatively, does narrative fool us, as philosopher and advocate of scientism Alex Rosenberg asserts? Even if narrative does fool us, does it fool us “*into being better than our biology allows us to be*” (to paraphrase David Malone)?

Even science is grounded in a narrative, explained Ard, and what help is science when measuring the value of a human being, or justifying our purpose and meaning? We then watched Sir Roger Penrose, world famous mathematician, demonstrating the simplicity of $\sqrt{-1} = i$. i is a number that does not exist in our material world, yet is critical to understanding the very fabric of our universe. This led onto discussion of non-material truths, including morality and spirituality.

Brains fully warmed up, we turned to the next talk on the theme of “Looking Up”, from John Bryant, Emeritus Professor at the University of Exeter. “*Keep looking up, that’s*



Prof John Bryant

the secret of life!” said Snoopy. John agrees and believes looking up is imperative to breaking the intense nature of scientific research.

What does looking up mean? It means looking up to think – can I see science as my Christian vocation? What does being a Christian bring to my work as a scientist? What is the scientist’s role in society, and how do we teach it? It means looking up to question – how did life start, is there a plan to evolution? It means looking up to worship – “*to know the mighty works of God...surely all this must be a pleasing and acceptable mode of worship to the Most High, to whom ignorance cannot be more grateful than knowledge*” said Copernicus. Science is beautiful, and John encouraged us to recognise this and use it to give praise to God. Suddenly I saw my science in a new and wonderful way.

After the coffee break, we heard from student speakers. As a new attendee at CiS conferences, I think it’s fantastic that CiS provides students with a platform on which we can express our ideas about science and faith. Ellie Morgenroth, from the University of Roehampton, discussed science as an act of worship and, Ellie suggested further, as a form of evangelism. Raphael Sikorski, from the University of Southampton, introduced the enormous subject of artificial intelligence.

It was enlightening to have such a detailed review of a difficult subject.

Following, Hannah Malcolm introduced the project “*God and the Big Bang*”, an exciting initiative aimed at engaging school students with science and faith. I was amazed and saddened as Hannah reported many students struggle to reconcile science and their faith, and even believe science is unhelpful to their faith.

The afternoon began with a quick update from Emily on student activities happening in CiS, before we Skyped Dr Ruth Bancewicz from the Faraday Institute in Cambridge. Ruth told us of her journey to faith, and encouraged us to use opportunities to speak about our role as Christian scientists in our Christian communities. She spoke of her wonderful work on moments of awe in science.

These moments are rare, Ruth explained, but incredible - the opportunity for scientists to appreciate God's vastness and power. The move from science to beauty takes us beyond science to bigger questions. I felt very strong parallels with the discussion from Ard and John's talks that morning. Ruth suggested that engaging with scientists on their moments of awe and wonder and their interpretation of them could be a more effective way of bringing faith into our conversations with colleagues, again touching on science as a form of evangelism.

Following from Ruth, we heard from Dr Jonathan Foster from the University of Sheffield. Jonathan has been involved with CiS for ten years, and yet never heard a talk on chemistry at a CiS conference... something he was determined to change! Jonathan suggested “science” is not one entity, but that different fields of science speak different languages, and have different



Marta Berbel Gallego at the book stall

ways of training their students.

He explained to us some of the language that is used in chemistry, and how it compares to other sciences. However, one thing that does unify us as scientists, or more

precisely, as Christian scientists, is how our science affects our perspective. He encouraged us to discuss the perspective and the insight our subjects give us to science, faith and the role of faith in science.

So successful was this suggestion, it turned into the final part of the day; discussion groups together. Our group covered topics such as the biological origins of life, the meaning of morality, the distinguishing of humans from other forms of life and the new creation.

Ultimately, we returned to the truth of Christianity: God, creator of all, made himself known to human beings. We turned away, but through his Son, our Lord Jesus Christ, restored is our relationship with Him. This was a wonderful way to finish. Thank you to Emily and the team for all the hard work you put into such a fulfilling, enlightening and encouraging day.

Speakers: We would like to expand our list of UK speakers. If you speak at meetings, could you please send a list of your preferred topics to Mary on maryb.cis@outlook.com

If you wish to start a Local Group in your area, please get in touch with Emily, our Development Officer, at do@cis.org.uk

Details of all events are also available on the CiS App and on our website www.cis.org.uk/events.

BRISTOL

Discussion groups - first Friday of every month. Friday 15th June 2018, 7pm for 7.30pm, "Caring for the Oceans 1" Speaker: Prof Meric Srokosz. Looking at the changing ocean dynamics including temperature, acidity, salinity, sea levels and ice melt.

Venue: Redland Church Hall, Redland Green Rd, Bristol BS6 7HE. No need to book – just turn up. Refreshments provided, including homemade cake and tea. No entrance charge, but opportunity to give donation, suggested £5, to cover costs.

For more information please contact Tina Biggs (cmbliggs@googlemail.com)

CAMBRIDGE

Wednesday 16th May at 5:30pm, "Science and the Reliability of the Bible". Speaker: Prof Sir Colin Humphreys. Christianity and Judaism claim to have their roots in history, but are the biblical records reliable? This talk will examine the scientific and other evidence in three challenging case studies: the story of Joseph (in Genesis), the sun standing still (in Joshua) and the Star of Bethlehem (in Matthew). Venue: McCrum Theatre, Corpus Christi College, Cambridge CB2 1RH

For details of events in Cambridge please go to <http://www.faraday.st-edmunds.cam.ac.uk/>

DUNDEE

For more details on Dundee events please contact christiansinsciencedundee@gmail.com

HARROW

For details of future events in Harrow please contact Revd Lyndon North (revlnorth@aol.com)

IPSWICH

For more information about future events please contact Dr John Ling (jjling@btopenworld.com).

IRELAND

A series of three lectures on "Are Natural Disasters Acts of God?" Speaker: Prof Bob White

LOCAL GROUP NEWS



Tuesday 20th March, 7:30pm. Venue: Room W5, West Wing, Main Quadrangle, University College Cork, College Road, Cork T12 K8AF

Wednesday 21st March, 7:30pm. Venue: MacNeill Lecture Theatre, Hamilton Building, Trinity College Dublin, College Green, Dublin 2

Thursday 22nd March, 7:30pm. Venue: Fitzroy Presbyterian Church, 77 University Street, Belfast BT7 1HL

All three lectures are open to the public and are free. To reserve a seat, or for further information on events, please contact Dr Peter van der Burgt (peter.vandenburgt@nuim.ie)

LEEDS

Further details of meetings please contact John Lockwood at jglockwood1@me.com

LONDON

For more details about the London group contact Benjamin Chang on cins.london@gmail.com

MANCHESTER

For more information, please contact the Secretary on sec.cismanchester@yahoo.co.uk

NORWICH

Monday 25th June at 7:30pm, "Conservation and hope for the Earth: A Christian understanding of planetary stewardship" Speaker: Dr Jeremy Lindsell will explore how we should care for (or be stewards of) God's creation. Venue: Trinity Meeting Place, Essex St. NR2 2BJ For more information please contact info@cis.norwich.org.uk

OXFORD - student

If any students are interested in being involved in an Oxford student group, please contact Emily on do@cis.org.uk

OXFORD

For more information on Oxford events, please contact Diana Briggs at diana.briggs@wolfson.oxon.org

READING

The Reading group meet bimonthly in central Reading. Please contact Simon Peatman for details at simon.peatman@sky.com

SHEFFIELD

There is a monthly meeting for staff at Sheffield University, on the 1st Wednesday of every month at 11am, in "Coffee Revolution" in the Students' Union. If you are interested in joining feel free to turn up, or contact Dr Rhoda Hawkins on rhoda.hawkins@sheffield.ac.uk

SOUTHAMPTON

For information on meetings please contact Peter May on petergeorgemay@gmail.com

SOUTH WEST

For more information on events in the South West, please contact Prof David Huntley at dhuntley@plymouth.ac.uk

ST ANDREWS

Undergraduate group please contact Dr Andrew Torrance (abt3@st-andrews.ac.uk), Joshua Sharp (jas29@st-andrews.ac.uk) or Laura McCullagh (lsm4@st-andrews.ac.uk).

Postgraduate group, please contact Dr Rebecca Goss (rjmg@st-andrews.ac.uk).

SURREY

Tuesday, 17th April at 7pm, "Science and the Historicity of the Bible: Part 2 – The Long Day of Joshua, and The Resurrection." Speaker: Prof Sir Colin Humphreys. Venue : Christ Church, between 861-863, Brighton Road, Purley, Surrey. CR8 2BN.

For more details please contact Joy Perkins at joyeperkins@googlemail.com

SURREY HEATH (formerly 'Three Counties Borders') For more details please contact John Russell at chynoweth.jw@gmail.com

TYNESIDE & NORTHUMBERLAND

For information on Newcastle events, please contact Bill Clegg at bill.clegg@ncl.ac.uk (please include CiS in the subject line)

UCL - Student

The new student group at UCL had their inaugural public meeting on 15th March, welcoming Dr Ruth Bancewicz. If you are interested in joining the group, contact Marta Berbel Gallego on cisucslsoc@gmail.com

WEST MIDLANDS

For more information on The West Midlands Group please contact Godfrey Armitage at g.n.armitage@warwick.ac.uk

WORCESTER

All are welcome – entry, parking and refreshments are free, although we suggest a donation of £3, to cover expenses. For more information on Worcester events please contact Jim Smith on jgsmith29@aol.com

YORK

CiS York is a new local group. For more information please email christiansinscienceryork788@gmail.com

Reminder - Annual CiS Membership renewal

All membership renewal notices go out during February/March. If you have any questions please email Fran Armitage, our membership secretary, on membership@cis.org.uk

Due to changes in legislation, we need to ensure all CiS members are happy to share their mailing / e-mail address / telephone number with other CiS members. We will take it that you agree to this, unless you have notified Fran to the contrary. Please note that we do not share your information with any third party without first obtaining your permission to do so.

Please read the renewal letter carefully.