

Universal Bach

MUSIC

Few composers are held in higher regard than Johann Sebastian Bach. And now, a new concert series, *Bach, the Universe & Everything* by the Orchestra of the Age of Enlightenment, is bringing people together in celebration of his genius. Running over the winter months at London's Kings Place, the series pairs Bach's cantatas with physical concepts and theories, explained by guest speakers organized in partnership with the Institute of Physics.

Douglas Adams, to whom the series' title pays homage, was quoted as saying: "Beethoven tells you what it's like to be Beethoven and Mozart tells you what it's like to be human. Bach tells you what it's like to be the Universe." The themes explored over the course of six months delve into this Universe, covering principles as diverse as cosmology and photonics, using Bach's cantatas as analogies.

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In the first event of the series, Carlos Frenk, former winner of the Gold Medal of the Royal Astronomical Society, explored the origin of galaxies while the orchestra played *Ich glaube, lieber Herr, hilf meinem Unglauben*, a meditation on birth and hope. The second saw Sir John Pendry discuss the physics of light alongside a trumpet-laden *Wachet! betet! betet! wachet!* Kishan Dholakia appeared in the fourth show, discussing photonic imaging to accompany the orchestra's rendition of *Erfreute Zeit im neuen Bunde*.

I visited the third instalment, titled simply 'Antimatter Matters', which featured the Christmas cantata *Darzu ist erschienen der Sohn Gottes*. Like the vast majority of Bach's work, this piece is religious in focus and centres on the idea of Jesus being born



Credit: Eric Richmond

to conquer the devil: despite the symmetry between good and evil, one was formed because of the other.

This is an important introduction to the discussion led by particle physicist Tara Shears from the University of Liverpool. Shears points out that the symmetry between matter and antimatter is not perfect, and this imperfection has huge consequences for our understanding of our own place in the Universe. Balance between the two would require a far greater quantity of antimatter than is observable — a mystery that forms the focus of Shears's research at CERN. (Listen to Shears's interview on BBC Radio 3's 'Spirit of Bach'; <http://www.bbc.co.uk/programmes/b09k5pg1>.)

Of course, this is not the first series to form an association between Bach and science. Compositional structures and the use of patterns have led to debate about the extent to which the Baroque composer was inspired by mathematics. A motif he repeated regularly throughout his career uses the German musical nomenclature to spell out the letters of his name: B-A-C-H. And, as Shears notes, the motif's mirror image H-C-A-B is often used to end segments that begin with it.

The final instalment in *Bach, the Universe & Everything* will feature *Himmelskönig, sei willkommen*, which

details Jesus's arrival in Jerusalem. Dame Jocelyn Bell Burnell is billed to tell the world how we are made of star stuff — a lofty ending to a series with lofty ambitions. Capturing 'the Universe' and 'everything' was always going to be a difficult task, but in terms of providing an entertaining introduction to some difficult concepts, it can certainly claim success.

The show I attended began with the audience being drafted into the chorale — whether they could sing or not. This involvement, together with the discussion of matter and antimatter, creates an experience, not just a performance. Yet this should by no means take anything away from the orchestra and its musicians, who offer some fantastic performances.

And although the question of life's meaning may simply be answered with the number 42, we still have a way to go to unlock the mysteries of matter and antimatter. But one thing is clear: there aren't many better ways to spend a Sunday morning than listening to Bach and pondering the Universe.

Reviewed by Adam Cox

Bach, the Universe & Everything runs until 18 March 2018 at Kings Place in London.

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