

# COVER IMAGES

Our cover images for this issue show a worldship interior envisaged as part of i4is Project Hyperion and differing images of the familiar star Vega, from space telescopes developed many years apart but both very much alive.

## FRONT COVER

Project Hyperion Worldship interior  
Credit: i4is Project Hyperion



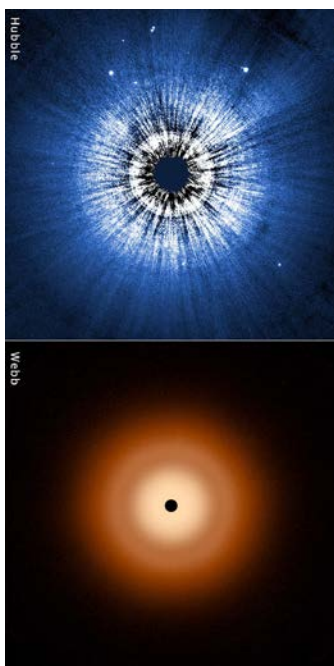
i4is Project Hyperion is a design competition launched in November 2024 and based on work from 2011 by i4is at the International Space University, Strasbourg. More about the project in *Project Hyperion* in this issue.

## BACK COVER

### Back cover

Hubble vs JWST images of Vega

Credit: NASA Hubblesite ([hubblesite.org](https://hubblesite.org)), Space Telescope Science Institute ([www.stsci.edu](https://www.stsci.edu))



After 34 years in space the Hubble Space Telescope is still delivering stunning results but it operates in a different but overlapping spectrum than its younger sibling the James Webb Space Telescope (JWST) launched on Christmas Day (25 December) 2021 [1]. TOP: A Hubble Space Telescope false-colour view of a 1,000 astronomical units (AU) wide disc of dust around Vega. Hubble detects reflected light from dust the size of smoke particles on the edge of the disk. The black spot at the centre blocks out the glow of the star. BOTTOM: The James Webb Space Telescope resolves the glow of warm dust in a disk halo, at 250 AU out. The outer disk (analogous to the solar system's Kuiper Belt) extends from 75 AU to 160 AU. The black spot at the centre is due to lack of data from saturation. Caption adapted from NASA Hubblesite [2].

[1] The JWST mirror is 6.5 metres in diameter and the Hubble mirror is 2.4 metres so the crude light gathering capacity of the younger telescope in  $6.5^2 / 2.4^2 = 42.25 / 5.76 = 7.34$  times greater than its predecessor.

[2] Full Credits: NASA, ESA, CSA, Space Telescope Science Institute (STScI), S Wolff (University of Arizona), K Su (University of Arizona), A Gáspár (University of Arizona) [hubblesite.org/contents/media/ges/2024/030/01JBF20FGYTRR4E0QVBWY516R1](https://hubblesite.org/contents/media/ges/2024/030/01JBF20FGYTRR4E0QVBWY516R1)