

THE GAIA PROJECT

UNRAVELLING THE MYSTERIES OF THE MILKY WAY

The European Space Agency's (ESA) Gaia satellite is capturing data on around 1 billion celestial objects to create a 3D map of the Milky Way - but exactly how much information is being collected and how is it being stored and analysed?



The Gaia satellite will look at around **1 BILLION** celestial objects over a period of 5 years



Over its entire lifetime, Gaia will handle around **1 MILLION GIGABYTES** of data



That's nearly **50 YEARS** of entertainment

...If stored on DVDs, it would take



217,872

Over 5 years it will perform **10 SWEEPS** of the entire galaxy



Gaia records the **POSITION, MOVEMENT & BRIGHTNESS** of observed celestial bodies...



Gaia sees up to **40 MILLION** observations every day. This results in over 285 GB of scientific data per day



... and look at each one on average



70 TIMES



It is expected to discover **HUNDREDS of THOUSANDS** of new celestial objects... including extra solar planets and brown dwarfs (failed stars)

The Gaia Project is considered the **BIGGEST** data challenge in astronomy to date

InterSystems
Caché

is the main database used in the near-real-time processing, analysis and validation for the Gaia satellite

Through lightning fast performance and massive scalability, Caché will help

TACKLE THE BIG DATA ISSUE of the Gaia Project



Got a big challenge? We're built for big.

Find out more at www.intersystems.com/gaia

Sources
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