

# Dr. Gráinne Costigan

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gcostigan.com

Working in the most competitive and notable astronomy institutes in Europe, and the largest, current European space telescope, has given me strong team working skills, with a focus on attaining the end goal using innovative techniques and tools. I am looking forward to the next challenge of using my scientific knowledge and outreach and teaching experience to encourage the next generation of young scientist into STEM subjects.

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## EXPERIENCE

### Research Associate

Leiden University &  
ESA's Gaia spacecraft  
April 2014 - Current

- Member of data processing consortium of the European big data driven space observatory, Gaia.
- Part of the team developing the data archive, analysis tools & validation of data.
- Lead role in beta testing of archive, development of long term data and software preservation plan.
- Designed and supervised multiple student projects.

### PhD Student

ESO, Munich  
DIAS, Dublin  
Dec. 2009 – Nov. 2013

- Developed strong project development skills, from formulating the science question, assessing what tools are needed, completing necessary analysis to reach scientific goal, to final publication of results.
- Developed independent work ethic with good communication skills through working with multiple supervisors in different locations.
- Presented scientific results at multiple international conferences.

### Research Associate

Dundee University, UK  
Oct. 2008 – Aug. 2009

- Implemented and developed computer vision algorithms for planetary rover navigation.

### City Astronomer

Dundee, Scotland  
Oct. 2008 – Aug. 2009

- Lead the outreach program in the local public observatory.
- Gave weekly public lectures, with night sky and planetarium tours.
- Wrote a monthly astronomy column in local newspaper.
- Held astronomy and art workshops for children in conjunction with local artists.

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## EDUCATION

### PhD

Dec. 2014

Graduated Queen's University Belfast (Northern Ireland), PhD in Star formation. Title: Accretion Variability in Young Stellar Objects

### Masters

2007 – 2008

Cambridge University (UK), Master of Mathematics. CASM Part III

### Bachelors

2003 – 2007

Trinity College Dublin (Ireland), Theoretical Physics, BA(mod)

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## RECENT COMMUNITY INVOLVEMENT

Sept. 2016  
Bogotá, Colombia

Science teaching in a primary school as part of a three week voluntary placement. Designed and implemented program for all classes from 7 to 12 years old. Full class outline ([gcostigan.com/communication](http://gcostigan.com/communication)).

Oct. 2015  
Leiden, NL

Co-Organiser of Interdisciplinary seminar on Medical Imaging and Astronomy. In connection with Erasmus Medical centre (Rotterdam)


Oct. 2015 ESA  
(ESTEC), Netherlands.

Co-organiser of the 'Accretion and Outflows: Exchanging Mass, Momentum and Ideas' workshop at the European Space Agency.

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## TECHNICAL SKILLS

Python. MATLAB/Octave. MIDAS (FORTRAN based). ADQL (astronomical SQL). IDL. Bash. Latex. Unix.

 [twotonnetess.github.io](https://github.com/twotonnetess)