

# Jack Carlyle

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## Curriculum Vitae

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Astrophysicist, currently studying for a PhD in Solar Physics, experienced with analysing observational data and MHD modeling.

## Education

PhD in Solar Physics	Mullard Space Science Laboratory, UCL and Max Planck Institute for Solar System Research	2012 – present
MSci in Astrophysics	University College London	2007 – 2012
Physics, Mathematics, Psychology A-levels	Bullers Wood School	2004 – 2006

## Relevant Experience

Student Representative on the UK Solar Physics Council	Sept 2013 – present
Student Academic Representative for MSSL	Oct 2013 – present
Convener for monthly MSSL Student Talks	2012 – 2013
Student mentor	2010 – 2012

## Prizes & Awards

Awarded BIEP grant to study at Kyoto University, learning computational simulation techniques	Jan – Feb 2014
Won 'Best Poster by a Young Scientist' prize at IAUS300	June 2013

## Current work and research interests

In the first year of my PhD I have been using a novel polychromatic imaging method to calculate column densities of erupted chromospheric material, working with SDO/AIA images. I am now learning how to simulate MHD techniques and will be combining the observational and computational results to investigate the magnetic configuration and plasma dynamics of the solar atmosphere.

Space weather is a topic that interests me greatly, and I hope to continue to work on coronal magnetic eruptions for the foreseeable future.

## Skills

Computing	Highly competent with computing in general; experienced in several programming languages and high proficiency with unix-based systems.
Communication	Extremely confident and capable public speaker; able to communicate ideas eloquently to wide variety of audiences; very enthusiastic and experienced in outreach.

## Publications in peer-reviewed journals

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J. Carlyle, D. R. Williams, L. van Driel-Gesztelyi, D. Innes, A. Hillier, S. Matthews • Investigating the dynamics and density evolution of returning plasma blobs from the 2011 June 7 eruption • *ApJ*, **781**, in press • DOI: 10.1088/0004-637X/781/1/1

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L. van Driel-Gesztelyi, D. Baker, T. Török, E. Pariat, L. M. Green, D. R. Williams, J. Carlyle, G. Valori, P. Démoulin, B. Kleim, D. M. Long, S. A. Matthews, J. M. Malherbe • Coronal magnetic reconnection driven by CME expansion – the 2011 June 7 event • *ApJ*, submitted

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D. Baker, D. H. Brooks, P. Démoulin, L. van Driel-Gesztelyi, L. M. Green, K. Steed, J. Carlyle • Plasma composition in a sigmoidal anemone active region • 2013 • *ApJ*, **778**, 69 • DOI: 10.1088/0004-637X/778/1/69

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## Publications in conference proceedings

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J. Carlyle, D. R. Williams, L. van Driel-Gesztelyi, D. Innes • Density evolution of in-falling prominence material from the 7th June 2011 CME • *Proceedings of the International Astronomical Union*, **300**, 401 • DOI: 10.1017/S1743921313011277

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## Professional presentations

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Seminar presented at Kyoto University on the dynamics and density evolution of returning plasma blobs from the 2011 June 7 eruption 15<sup>th</sup> January 2014

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## Supervisors / References

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Prof. Lidia van Driel-Gesztelyi  
Observatoire de Paris  
LESIA  
UMR 8109 (CNRS)  
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Dr. David R. Williams  
Mullard Space Science Laboratory, UCL  
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