

**Postdoctoral Research Associate**

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| <b>Ref Number:</b>                            | <b>STM0783</b>  |
| <b>Salary Scale:</b>                          | <b>Grade 7: £32,958 - £38,183 per annum. Due to the funding for the position the starting salary is likely to be £32,958.</b> |
| <b>Contract:</b>                              | <b>For a fixed term of 2 years AND Full Time</b>  |
| <b>School/Department:</b>                     | <b>School of Mathematics, Statistics and Actuarial Science</b>  |
| <b>Location:</b>                              | <b>University of Kent, Canterbury Campus</b>  |
| <b>Responsible to:</b>                        | <b>Dr Alfredo Deaño</b>   |
| <b>Closing Date for applications:</b>         | <b>31<sup>st</sup> May 2017</b>   |
| <b>Interviews are expected to be held on:</b> | <b>13<sup>th</sup> June 2017</b>  |
| <b>Expected start date:</b>                   | <b>1 September 2017 (or later by agreement, but no later than 1 December 2017)</b>  |

**The Role**

A postdoctoral research associate (RA) is sought to assist Dr Alfredo Deaño with his 2-year EPSRC First Grant project entitled "Painlevé equations: analytical properties and numerical computation." The aim of this project is to explore analytical, asymptotic and computational properties of Painlevé equations in the complex plane, with special emphasis on special function solutions.

This project requires the participation of a postdoctoral researcher with a strong research track record, as well as relevant skills and experience in one or more areas appropriate to the project (special functions, asymptotic and complex analysis, numerical techniques). Part of the project involves programming in Mathematica and Matlab, so experience in this direction is highly desirable. The RA is expected to work in close collaboration with Alfredo Deaño on all aspects of this project.

The successful applicant will be based on the Canterbury campus of the University of Kent and will join the Mathematics group at the School of Mathematics, Statistics and Actuarial Science. Our ambitious and energetic school provides a stimulating research environment in Mathematics, complemented by seminar series, international conferences and workshops. The School values diversity and inclusivity, and was the first school at the University of Kent to obtain an Athena Swan Bronze award.

Full details about teaching and research in the School can be found on our website: [www.kent.ac.uk/smsas](http://www.kent.ac.uk/smsas)

### Key Accountabilities / Primary Responsibilities

The RA should be devoted to research in the School of Mathematics, Statistics & Actuarial Science (SMSAS), primarily in collaboration with the PI (Alfredo Deaño) and potentially with any PhD students/collaborators in the group. Dissemination of the results of the project, through writing papers for publication in journals and giving presentations at international conferences, is also an essential part of the role.

### Key Duties

The RA is expected to carry out research in SMSAS, and fully participate in the academic life of the School. The RA will take part in writing papers for publication in international journals and in all dissemination aspects of the project. In particular, the RA will have the opportunity to participate in and deliver talks at workshops and conferences.

There will also be the opportunity to assist the PI in the supervision of research students. The RA will be encouraged to take part in public outreach activities. In addition, there will be the chance to do a limited amount of teaching and/or project supervision of undergraduates.

### Health, Safety & Wellbeing Considerations

This role involves undertaking duties which include the Health, Safety and wellbeing issues outlined below. Please be aware of these, when considering your suitability for the role.

- Regular use of Screen Display Equipment

### Internal & External Relationships

**Internal:** University of Kent staff and students

**External:** Researchers, Learned Societies

### Person Specification

The person specification details the necessary skills, qualifications, experience or other attributes needed to carry out the job. Applications are assessed against each of the criteria either at application or interview stage. Applications will be deemed unsuccessful if an essential criterion is not met. This may also help you self-select if you are suitable for the role.

- **Qualifications / Training**

|                            | Essential | Desirable |
|----------------------------|-----------|-----------|
| A doctorate in Mathematics | ✓         |           |

▪ **Experience / Knowledge**

|  | <b>Essential</b> | <b>Desirable</b> |
|--|------------------|------------------|
| A strong research record in Mathematics evidenced by publications in international Mathematics journals  | ✓                |                  |
| A track record of presentations at conferences etc.  | ✓                |                  |
| Background in one or more of the following areas: <ul style="list-style-type: none"> <li>• Special functions</li> <li>• Asymptotic analysis, including Riemann-Hilbert problems</li> <li>• Numerical analysis</li> <li>• Complex analysis</li> </ul> | ✓                |                  |
| Programming experience in Maple, Matlab or a similar language.   |                  | ✓                |
| Experience of providing excellent teaching in Mathematics at undergraduate and/or postgraduate levels  |                  | ✓                |
| Experience of designing and supervising project work at undergraduate and postgraduate level   |                  | ✓                |

▪ **Skills / Abilities**

|   | <b>Essential</b> | <b>Desirable</b> |
|---|------------------|------------------|
| Good written and communication skills             | ✓                |                  |
| Willingness to organise conference(s)/workshop(s) |                  | ✓                |
| Willingness to participate in outreach activities |                  | ✓                |