



## RadioNet support for Short Term Missions Application form

STM INFORMATION	
APPLICANT'S NAME	MIGUEL PÉREZ-TORRES
APPLICANT'S AFFILIATION	INSTITUTO DE ASTROFÍSICA DE ANDALUCÍA - CSIC Glorieta de la Astronomía s/n E-18008 Granada, SPAIN
HOST INSTITUTE	Max-Planck-Institut für Radioastronomie Auf dem Hügel 69 D-53121 Bonn, GERMANY Contact person: Prof. Eduardo Ros Tel. +49 228 525 125 <a href="mailto:ros@mpifr.de">ros@mpifr.de</a>
DATE OF THE STM	28 July 2017 - 7 August 2017
TOTAL COST OF STM	9 nights at Bonn's guest house = 400 EUR/week + 2 nights * 80 EUR/nights = 560 EUR Travel expenses ~ 600 EUR Meals for 10 days ~ 500 EUR Total cost is about 1660 EUR, of which I request 1160, since the expenses for meals will be surely paid by my home institution.
OTHER SOURCES OF FUNDING	Partial funding to be claimed to home institution.
<b>Request</b> (max. 2,5 pages)	
Topic	<i>Scientific collaboration with the group of Prof. Dr. J. Anton Zensus, especially with Prof. Dr. Eduardo Ros on the topic of radio emission from the central regions of (Ultra)-Luminous Infra-Red Galaxies (U/LIRGs).</i>  <i>This visit will facilitate completion of the analysis and publication of scientific results obtained with the European VLBI network, thus promoting the results of RadioNet activities. Notice that my work has been subject of one press release from RadioNet activities in late 2014 and early 2015 (Constraints on Type Ia SN progenitors from EVN observations SN2014J).</i>
Proposed work	<i>I propose to work together with Prof. Dr. Ros and other MPIfR colleagues on state-of-the-art VLBI observations of the central regions of U/LIRGs, in particular of Arp299.</i>  <i>I've successfully obtained multi-epoch, multi-frequency EVN observations of the merging galaxy system Arp299, where the large dishes of the EVN (Effelsberg, Westerbork (until it has become essentially a single-dish telescope), Lovell, and the recently added SRT and Tianma) play a crucial role, given the extremely faint targets in our field of view (supernovae and supernova remnants at a distance of 45 Mpc). All these telescopes, and the observatories that are responsible for them, are RadioNet partners.</i>

	<p><i>My plan is to analyze the most recent epochs (since 2014 onwards) in a systematic way, with the help of Dr. Ros, and start preparing a high-profile publication, which will highlight the relevance of the EVN in the VLBI world.</i></p> <p><i>The host is a world reference in VLBI studies, and the access to local expertise and cutting-edge radio facilities will allow me to enhance present research by enjoying the opportunities of the MPIfR, in the spirit of enhancing radio astronomy across Europe.</i></p> <p><i>In addition, I intend to foster synergies for further collaboration on AGN/Star-forming studies with MPIfR staff scientists. It is planned to have a small workshop (discussion round) with staff, postdocs, and students in Bonn, with the goal of strengthening my collaborations with the RadioNet institutions, with the final goal of making the best use of European facilities and scientific networking.</i></p>
Cross-disciplinary	<p><i>The group of Prof. Dr. Ros have at present regular access to the best radio facilities in the world. Local developments state-of-the art software and advancement in the field of radio interferometry data reduction, especially for VLBI offer an optimum environment to complement my present activities in radio astronomy research. In this sense, a face-to-face stay for about ten days in the fertile ambient of the MPIfR in Bonn would be highly beneficial for me and the members of my team in Spain, which would benefit of the know-how acquired directly in Bonn.</i></p>
Impact	<p><i>The transfer of knowledge from my stage at Bonn to the members of my team would be high. The impact in terms of getting the best out of my currently obtained data with the EVN and with global VLBI arrays, as well as for future requests, is very high. This knowledge is something that can only be obtained by direct interaction with scientists like Prof. Dr. Ros and other colleagues such as Dr. Andrei P. Lobanov, Dr. Richard W. Porcas, etc.</i></p>
Curriculum Vitae	<p><i>I'm attaching below an abbreviated, 1-page long CV. My three selected publications from recent work where I've been first author are the following ones:</i></p> <p><i>1.- Pérez-Torres, M. A., Lundqvist, P., Beswick, R. J., Björnsson, C. I., Muxlow, T. W. B., Paragi, Z., Ryder, S., Alberdi, A., et al. Constraints on the Progenitor System and the Environs of SN 2014J from Deep Radio Observations The Astrophysical Journal, v. 792, pp. 38 - (2014)</i></p> <p><i>2.- Pérez-Torres, M. A., Alberdi, A., Romero-Cañizales, C., Bondi, M. Serendipitous discovery of the long-sought active galactic nucleus in Arp 299-A Astronomy and Astrophysics, v. 519, pp. L5 - (2010)</i></p> <p><i>3.- Pérez-Torres, M. A., Romero-Cañizales, C., Alberdi, A., Polatidis, A. An extremely prolific supernova factory in the buried nucleus of the starburst galaxy IC 694 Astronomy and Astrophysics, v. 507, pp. L17 - L20 (2009)</i></p>

## Dr. Miguel Á. Pérez-Torres

PERSONAL DATA	Date of birth: October 7th, 1969 Nationality: Spanish	Place of birth: Teruel, Spain DNI: 25.404.168R
CONTACT INFORMATION	<b>Staff Research Scientist (Full Time)</b> Dept. of Radio Astronomy Instituto de Astrofísica de Andalucía - CSIC Visiting researcher at Depto. de Física Teórica de la Universidad de Zaragoza	<i>Phone:</i> +34-976 84 32 84 <i>Mobile:</i> +34-665 25 25 38 <i>E-mail:</i> <a href="mailto:torres@iaa.es">torres@iaa.es</a> <a href="http://www.iaa.es/~torres">http://www.iaa.es/~torres</a>
MAIN RESEARCH	<b>Starbursts, AGNs, Supernovae, Radio Astrophysics</b>	
ACADEMIC APPOINTMENTS	<b>Staff Research Scientist (Científico Titular)</b> Instituto de Astrofísica de Andalucía - CSIC Department of Radio Astronomy and Galactic Structure, <b>Ramón y Cajal Postdoctoral Fellow</b> IAA-CSIC, Granada, Spain. IRAM, Granada, Spain. <b>I3P Postdoctoral Fellow</b> IAA-CSIC, Granada, Spain. <b>Marie Curie Postdoctoral Fellow</b> Istituto di Radioastronomia - INAF, Bologna, Italy <b>IRA-CNR Postdoctoral Fellow</b> Istituto di Radioastronomia - INAF, Bologna, Italy	Sep 11, 2009 to present Dec 1, 2003 - Sep 10, 2009 Apr 1, 2004 - Sep 10, 2009 Dec 1, 2003 - Mar 31, 2004 Feb 1, 2003 - Nov 30, 2003 Jan 1, 2001 - Dec 31, 2002 Jan 1, 2000 - Dec 31, 2000
EDUCATION	<b>Ph.D. in Physics</b> , University of Valencia, Spain. <b>B.Sc. and M.Sc. in Astrophysics</b> , Moscow State University.	Nov 24, 1999 Jan 25, 1994
STUDENT ADVISING	<b>Advisor of four Ph.D. students</b> (currently supervising one, since Jan 2014; two Ph.D. students supervised simultaneously during Sep 2007 and Nov 2011). <b>Advisor of two Postdoctoral fellows, one post-graduate fellow, and six Master's Thesis students.</b>	
TEACHING	<b>University of Granada</b> , Spain. <b>University of Valencia</b> , Spain.	Oct 2005 – Jun 2013 Oct 1998 – Jun 1999
PUBLICATIONS	≥90 refereed papers in Astrophysics: 21 as main author; 11 as second author. ≥ 100 non-refereed publications (source ADS); 1st author in 31 of them. >4510 citations (as of 17 Sep 2016). Hirsch index h=36. Three books edited. >13 invited and/or review talks in international conferences.	
SELECTED PROFESSIONAL SERVICE	<ul style="list-style-type: none"> <li>- Referee of Astrophysical Journals of high impact (A&amp;A, ApJ, ApJL, MNRAS).</li> <li>- Referee for the Spanish MINECO - Juan de la Cierva grants (2015 –).</li> <li>- Referee for the Spanish MINECO - Astronomy project grants (2015 –).</li> <li>- Referee for the evaluation of ERC FP Consolidator Grants (2013 –).</li> <li>- Member of the European VLBI Network Programme Committee (2012 –).</li> <li>- External Science Referee for the eMERLIN radio astronomy network (2005 –).</li> <li>- Member of the eVLBI Scientific Advisory Group (2009-2012).</li> <li>- Scientific reviewer for the the Italian Posdoctoral programme AstroFit (2012) and for the Argentinian FONCYT (2007).</li> <li>- Edition of Proceedings, Member (Chair or otherwise) of several LOC and SOC in international conferences and workshops.</li> <li>- Opponent in several Ph.D. and Master Theses.</li> <li>- Secretary of the Assembly of researchers at the IAA-CSIC (2012 – 2013).</li> </ul>	