

### Goal #3: Partnerships

Enable NANOGrav to establish collaborative relationships and operate effectively with IPTA members from different nationals and cultural backgrounds.

	Year 1	Year 2	Year 3	Year 4	Year 5
Number of Countries Involved	9	9	9	11 <sup>i</sup>	12
Number of Institutions Involved	20	20	20	24 <sup>ii</sup>	28
Number of Undergraduate Students who Research/Study Abroad	1	6	8	8 <sup>iii</sup>	8
Number of Graduate Students who Research/Study Abroad		2	4	4 <sup>iv</sup>	4
Number of Papers Written with International Partners	30	35	35	40 <sup>v</sup>	45
Number of Faculty Research Visits Abroad	4	4	4	4 <sup>vi</sup>	4
Number of Institutions who Have Signed MOUs for Partnerships	2	6	8	7	10
Authorship		Develop authorship policy for NANOGrav papers.			

<sup>i</sup> We can count 11 countries, but in the case of the last 3, we need to keep working on them. Rick is working on China. Andrea is the liaison to South Africa but I think others are more involved. Dunc's student traveled to Korea this year but I think more could be done. Additional countries to consider are India and Russia. 1. France 2. UK 3. Netherlands 4. Italy 5. Canada 6. Australia 7. Germany 8. United States 9. South Africa 10. China 11. South Korea

<sup>ii</sup> 25 total United States (14): Berkeley, Cornell, F&M, Oberlin, WVU, Lafayette, NRAO, NAIC, Penn State, U. of Vermont, JPL, U. of Texas Brownsville, Goddard, U. of Wisconsin Canada (2): UBC, McGill England (1): U. of Manchester/ Jodrell Bank Center for Astrophysics Germany (1): Max Planck Institute for Radioastronomie the Netherlands (2): ASTRON, Anton Pannekoek Instituut France (1): CNRS Italy (1): Cagliari Astronomy Observatory Australia(3): ATNF, Swinburne University, University of Sydney China (1): South Korea (1):

<sup>iii</sup> 12 if all these things happen. From July-August 2013: Virginia Cunningham (WVU) Renee Spiewak (UWM) After September 2013: Nick Mahany (F&M), June/July 2014 Swinburne Kristina Rolph (F&M), June/July 2014 Swinburne (tentative). An additional one from Xavi, one from Scott/Paul, one from Jim, one from Rick, and four from Maura.

<sup>iv</sup> From July-August 2013: Joey Martinez (UTB) Pete Gentile (WVU) After September 2013: Rossina Australia Summer 2014 (tentative) Megan Australia Summer 2014 (tentative) Fernando Cardoso to McGill spring 2014 (tentative)

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<sup>v</sup> 11 publications since 8/2013.

<sup>vi</sup> Joanna Rankin will be going to Manchester and Amsterdam.