

滞在型研究員報告書

Activity Report for the NAOJ Visiting Fellows Program

所 属 (Institution)	University of Trento
氏 名 (Name)	Leonardi Matteo
研究課題名 (Research subject)	Realization of a 300 m long filter cavity for the production of frequency-dependent squeezed states of light at TAMA
滞在期間 (Period of stay)	<div style="display: flex; justify-content: space-between; align-items: center;"> <div> 年 月 日 2016 11 29 </div> <div> ~ </div> <div> 年 月 日 2016 12 23 </div> </div>
受入責任者氏名 (NAOJ host researcher)	Raffaele Flaminio

<p>1. 滞在型研究員として国立天文台滞在中に行った活動について簡単にお書きください。 (Summarize your activities during the stay using the NAOJ Visiting Fellows Program.)</p> <p>My activity has been carried out in the contest of the project for producing frequency-dependent squeezing to prepare the future upgrade of KAGRA.</p> <p>I worked mostly on the realization of the frequency independent vacuum source.</p>
<p>2. 今回滞在型研究員として得られた成果について簡単にお書きください。 (Summarize your research products from the stay.)</p> <p>My work concerned mainly the realization of a green light source (532nm) generated via Second Harmonic Generation (SHG) starting from an IR pump (1064nm).</p> <p>I succeeded in aligning the cavity internally and in defining the proper working condition of the SHG cavity (namely input light polarization, crystal temperature, input waist dimension).</p> <p>Aside this part of the work I helped the other people involved in this project realizing some electronic boards (low pass filters with variable gain).</p>

様式 2 (Form 2)

3. この制度について何か御意見がありましたら、お書きください。
(Please provide any comments about this program.)

This has been my first experience with the Visiting Fellow Program and I found it to be very stimulating and well organized.