平成 27 年度共同利用研究・研究成果報告書

| 研究課題名 和文: CTAサイト準備 |
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| 英文: Site preparation for the first Large Size Telescope of CTA in La Palma, |
| Canary Islands, Spain |
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| The main purpose of the project was to select the exact location of the first Large Size |
| Telescope (LST1) of the Cherenkov Telescope Array (CTA) in La Palma. Canary |
| Island. Spain. The final 3-D model of LST1 is shown in Figure 1. |
| The results of the project are very |
| positive. The following milestones |
| have been achieved: |
| 1) The telescope foundation project |
| drafted together with a Spanish |
| architect and submitted to the |
| local Spanish authorities. |
| 2) Corner stone ceremony for LST1 |
| in La Palma with participation |
| of Canarian Government, Director of ICRR, Prof. Kajita, LST management, IAC |
| Director Prof. Rebolo and many politicians from Spain. |
| 3) Permission #1 to build the LST1 from the Island Government obtained on |
| October 22, 2015. |
| 4) Permission #2 to build the LST1 from the local town hall of Garafia (La Palma) |
| obtained end of March 2016. |
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With these two permissions the civil works on LST1 can start. The exact location of the telescope foundation is shown in Figure 2. The left panel shows the location of the

platform for the telescope dish and the camera support structure assembly (yellow). The right panel of Figure 2 shows the foundation area (dashed purple circle) together with the telescope and the camera access tower. Figure 3 shows the side view of the foundation and the telescope.

The other parts of the LST1 project are progressing very well, too. The rail and the central pin (to be installed in the foundation) are ready and can be installed in August 2016. The telescope understructure and the dish will be delivered to La



Figure 2: The foundation and assembly platform for LST1 in La Palma, top view.



Figure 3: Foundation of LST1, side view.

Palma by August 2016 and assembled in September, October 2016. The telescope arch and the mirrors are in production phase and are on schedule. The camera goes through the testing at ICRR (mini camera project) and will ready for integration tests in Autumn 2016. The only uncertainty at the moment is the ability of the company Dragados to finish the telescope foundation by September 2016. The company won the bidding in May 2016 and the schedule of the works is currently being discussed. In case the negotiations are successful the telescope will be installed and taken in operation by Summer 2017. In the same time, foundations of telescopes LST2, LST3 and LST4 must be drafted and corresponding permissions obtained so that the foundations can be built in FY 2017. Commissioning of LST1 will proceed until end of 2017 with first physics results arriving by the same time. First results of stereo system of several LST telescopes in La Palma are expected to by early 2019.

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