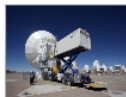


**In The News** Last 7 Days



**Taiwan, New Zealand launch ECA feasibility study** 10/26/2011 *Taiwan Today*  
 Taipei and Wellington agreed to investigate the feasibility of signing a bilateral economic cooperation agreement Oct. 25, a move that could pave the way for Taiwan's eventual inclusion in the Trans-Pacific Partnership.



**ALMA takes Taiwan astronomy to new heights** 10/26/2011 *Taiwan Today*  
 Taiwan has succeeded in leading eight of the first 112 projects to use the Atacama Large Millimeter/submillimeter Array (ALMA), the world's largest and most advanced astronomical observatory complex, according to the nation's top research institution Academia Sinica Oct. 25.



**Taiwan names Tsou ritual national folk heritage** 10/26/2011 *Taiwan Today*  
 An aboriginal ritual performed annually by Taiwan's Tsou tribe was certified Oct. 25 by the Council for Cultural Affairs as a folk heritage of national importance.

**MOEA deputy minister calls for Taiwan-EU economic pact** 10/26/2011 *Taiwan Today*

The European Union should reach an economic cooperation agreement with Taiwan to capitalize on the country's significant role in Asian economies, Deputy Minister of Economic Affairs Lin Sheng-chung said Oct. 25.

**News Ticker** 10/26/2011 *Taiwan Today*

The Taipei Economic and Cultural Office in Canada signed a cooperative memorandum of understanding on **graduate student exchanges** Oct. 24 with the Canadian Institutes of Health Research and the Canadian foreign ministry.

**Nantou undertaker keeps promise to send man's**

**Snapshots**



**Presidential pose**

Visitors to ROC President Ma Ying-jeou's campaign headquarters pose with a cardboard cutout of his likeness Oct. 25 in Taichung City, central Taiwan. (CNA)

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**Editorial**

Remove barriers to ROC-US FTA 10/22/2011

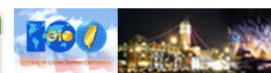
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## In the News

### ALMA takes Taiwan astronomy to new heights



- Publication Date : 10/26/2011
- Source : [Taiwan Today](#)

Taiwan has succeeded in leading eight of the first 112 projects to use the Atacama Large Millimeter/submillimeter Array (ALMA), the world's largest and most advanced astronomical observatory complex, according to the nation's top research institution Academia Sinica Oct. 25.

Taiwanese scientists will be among the first to use the new astronomical tools of ALMA. (Courtesy of National Radio Astronomy Observatory)

"Taiwan's participation in the ALMA project is the culmination of the development of the radio astronomy program in Taiwan," said Paul Ho, director of the academy's Institute of Astronomy and Astrophysics (ASIAA). "Taiwan's success is the result of its long term dedication and commitment to

ALMA."

Among the accepted Taiwanese projects, ASIAA Associate Research Fellow Lee Chin-fei and his team will use ALMA "to map a jet from a baby star in Orion, in order to measure its rotation and to confirm its roles in removing excess angular momentum in star formation," according to Academia Sinica.

"ALMA is a perfect tool to study the jets because of its unprecedented high angular resolution and sensitivity," Lee said, adding that the sensitivity of the observatory exceeds that of all other telescopes of its kind. He compared the power of ALMA to being able to clearly see a penny atop Taipei 101 from Kenting at the southernmost tip of Taiwan.

A proposal by ASIAA Assistant Research Fellow Wang Wei-hao to use ALMA to observe two gamma-ray burst host galaxies in the early universe was also selected. "ALMA can detect the very faint submillimeter light from the gamma-ray burst host galaxies," Wang said.

"This will help us to understand how fast the galaxies are forming young and massive stars, which is a fundamental property of a galaxy," he explained. "Once we have clearer ideas about the connection between the properties of the host galaxies and the bursts, we can make better use of gamma-ray bursts to probe galaxies in the most distant and early universe."

According to Academia Sinica, ALMA is an international partnership among Chile, Europe, North America and East Asia. Situated at an elevation of 5,000 meters in Chile, the observatory will be completed in 2013 with 66 radio antennas.

"When the whole array has been set up, it will provide angular resolution of 5 milli-arc-seconds, giving 10 times sharper images than the Hubble Space Telescope, allowing us to observe the universe in the earliest time at high resolution."

Academia Sinica is a collaborator with Japan on the East Asia team, while Taiwan's National Science Council is part of the North American team. Working with local industry, the Taiwan team has contributed both hardware and software to the construction of ALMA. (THN)

Write to Taiwan Today at [ttonline@mail.gio.gov.tw](mailto:ttonline@mail.gio.gov.tw)

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## ニュース

### 世界最高性能の「アルマ望遠鏡」、台湾の研究計画を採用



発信日時: 10/26/2011

世界最大、最高性能の電波望遠鏡「アルマ望遠鏡」が先ごろ、初期観測を開始した。まもなく本格的な研究観測を開始するべく、申請を受け付けた各国からの科学観測計画のうち、台湾の研究チームによる8計画が採用された。

アルマ望遠鏡の正式名称は「アタカマ大型ミリ波サブミリ波干渉計」、日米欧などの国際プロジェクトにより、チリ・アタカマ砂漠で建設中で、17カ国が出資と建設に関わっている。科学観測計画は世界から約9000チームが応募、承認されたのは112計画だった。採用された台湾チームの計画は全体の7%を占め、採用率は相当高いと中央研究院(中研院)は説明した。

アルマは2013年の竣工時には66台のパラボラアンテナを組み合わせる観測・研究を行う予定で、現在22台の設置が完了している。中研院によると、その感度は現在の天体望遠鏡の性能を超え、ハッブル宇宙望遠鏡の10倍に達し、台湾最南端の墾丁から台北101ビル頂上の1台湾元硬貨が観測できるほどの解像度を備えるという。

台湾の研究チームはまた、アンテナの受信機のフロント・エンド部のシステムの検査を担当、核心技術に貢献している。中研院によると、中研院と国防部軍備局中山科学研究所、磁震科技開発、啓昌工業が研究開発、製造した「フロント・エンド・サービス・ビークル(FESV)」2台が、海拔5,000メートルの高地という過酷な環境でアルマ望遠鏡の機器のメンテナンスを行う。

チリの観測所で国旗をバックにする中研院天文・天文物理研究所の賀曾樸所長(左)。(中研院提供、中央社)

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