



中央研究院與  
日本宇宙航空研究開發機構  
宇宙科學研究所  
合作協議簽約儀式

Signing Ceremony for  
the Cooperation Agreement between  
Institute of Space and Astronautical Science  
Japan Aerospace Exploration Agency and

媒 體 報 導

2014/1/17

# 中研院與日宇宙航空機構簽署合作

稍後再讀 

工商即時 杜蕙蓉 2014年01月17日 13:21

 讚 12 萬

 追蹤 上萬

 跟隨

 A<sup>-</sup> A A<sup>+</sup>

中央研究院與日本宇宙航空研究開發機構的日本宇宙科學研究所（Japan Aerospace Exploration Agency, JAXA; Institute of Space and Astronautical Science, ISAS）今（17）日就ERG科學衛星合作計畫舉行合作協議簽約儀式，這個合作計畫將使本國太空科學家能獲取ERG第一手觀測資料，以研究及分析地球所在的太空環境了解地球外圍物理現象。

此外，更提升我國尖端太空科技儀器製造經驗與能力，並預期在太空研究領域創造其他國際合作的機會。

日本宇宙航空研究開發機構（JAXA）與美國航太總署（NASA）及歐洲太空總署（ESA）同列世界三大太空科學機構。日本宇宙科學研究所研究所（ISAS）則負責日本太空科學衛星研究開發，本計劃是臺灣與國際重量級太空研究機構首次正式合作。

該合作協議由中研院院長翁啟惠代表與ISAS所長常田佐久簽訂合作協議。國內參與這項計畫的單位還有國立成功大學。

ERG衛星全名為Exploration of energization and Radiation in Geospace，屬於小型科學研究衛星。主要科學目標是用來研究太陽磁暴期間，范艾倫（Van Allen）輻射帶中高能粒子消失以及之後電子加速至極高能量的物理機制。ERG是近年最新的太空計劃之一，使用完整量化方式研究地球磁層的特定部分。臺灣團隊會負責其中電子能量分析儀LEP-e之研發，LEP-e是EGR衛星上搭載的五個科學儀器之一，用來觀測低能量電子之能量與密度分布。

此次簽約儀式，邀請到國立成功大學黃煌輝校長、國家太空中心張桂祥主任、中研院劉兆漢院士、中研院地球所所長李羅權院士及中研院天文所所長賀曾樸院士等人出席。

## Academia Sinica, Japan to collaborate on space research

TAIPEI, CNA

Academia Sinica, the country's top research institute, signed an agreement with a Japanese space research institution in Taipei on Friday to participate in a Japan-led mission that will study the physics of outer space near the Earth.

Signed by Academia Sinica President Wong Chi-huey and Saku Tsuneta, director general of the Institute of Space and Astronautical Science (ISAS), the five-year agreement represents the first formal space research mission in which Taiwan will work with a world-renowned space institution, Academia Sinica said in a statement.

In Taiwan, the project will be led by the Academia Sinica Institute

of Astronomy and Astrophysics (ASIAA) in partnership with National Cheng Kung University.

The mission, called Exploration of energization and Radiation in Geospace (ERG), involves a small scientific research satellite that will study the behavior of highly charged electrons in the magnetosphere, the region of outer space near the Earth.

That is where the Van Allen radiation belt captures a huge volume of the highly charged energy particles that are the focal point of the study.

Japanese scientists hope that data from the satellite will help them explain how these high-energy electrons are born as they generate and vanish repeatedly during space storms, and how space storms

themselves develop.

The Taiwanese team will deliver one of the project's five key instruments, an LEP-e analyzer that collects low-energy electron data, to help the ERG satellite observe the distribution of energy and density of low energy electrons surrounding Earth, Academia Sinica said.

The other four instruments involved in the project include middle- and high-energy electron analyzers as well as low- and middle-energy ion analyzers.

With all the data collected, researchers "can paint a comprehensive picture of the magnetosphere," said Wang Shiang-yu, a research fellow at Academia Sinica.

By paving the way for future in-

ternational opportunities in space research, the agreement will allow Taiwanese scientists to access ERG data for advanced research in geospace physics and increase their world class space research opportunities.

It will also strengthen Taiwan's capability in building top-notch instruments for space science missions, Academia Sinica said.

Under the Japan Aerospace Exploration Agency (JAXA), ISAS leads Japanese scientific satellite mission developments.

The JAXA is one of the world's major space agencies, together with the National Aeronautics and Space Administration and European Space Agency.

A news clips from the printed paper of China Post

## Academia Sinica, Japan to collaborate on space research

Saturday, January 18, 2014  
TAIPEI, CNA

TAIPEI--Academia Sinica, the country's top research institute, signed an agreement with a Japanese space research institution in Taipei on Friday to participate in a Japan-led mission that will study the physics of outer space near the Earth.

Signed by Academia Sinica President Wong Chi-huey and Saku Tsuneta, director general of the Institute of Space and Astronautical Science (ISAS), the five-year agreement represents the first formal space research mission in which Taiwan will work with a world-renowned space institution, Academia Sinica said in a statement.

In Taiwan, the project will be led by the Academia Sinica Institute of Astronomy and Astrophysics (ASIAA) in partnership with National Cheng Kung University.

The mission, called Exploration of energization and Radiation in Geospace (ERG), involves a small scientific research satellite that will study the behavior of highly charged electrons in the magnetosphere, the region of outer space near the Earth.

That is where the Van Allen radiation belt captures a huge volume of the highly charged energy particles that are the focal point of the study.

Japanese scientists hope that data from the satellite will help them explain how these high-energy electrons are born as they generate and vanish repeatedly during space storms, and how space storms themselves develop.

The Taiwanese team will deliver one of the project's five key instruments, an LEP-e analyzer that collects low-energy electron data, to help the ERG satellite observe the distribution of energy and density of low energy electrons surrounding Earth, Academia Sinica said.

The other four instruments involved in the project include middle- and high-energy electron analyzers as well as low- and middle-energy ion analyzers.

With all the data collected, researchers "can paint a comprehensive picture of the magnetosphere," said Wang Shiang-yu, a research fellow at Academia Sinica.

By paving the way for future international opportunities in space research, the agreement will allow Taiwanese scientists to access ERG data for advanced research in geospace physics and increase their world class space research opportunities.

It will also strengthen Taiwan's capability in building top-notch instruments for space science missions, Academia Sinica said.

Under the Japan Aerospace Exploration Agency (JA--A), ISAS leads Japanese scientific satellite mission developments.

The JA--A is one of the world's major space agencies, together with the National Aeronautics and Space Administration and European Space Agency.

Copyright © 1999 – 2014 The China Post.

[Back to Story](#)

<http://www.chinapost.com.tw/taiwan/national/national-news/2014/01/18/398662/Academia-Sinica.htm>

# Taiwan, Japan sign space research mission

**FIVE-YEAR AGREEMENT:** The mission involves a small scientific research satellite that will study the behavior of highly charged electrons in the magnetosphere

STAFF WRITER, WITH CNA

Academia Sinica, the nation's top research institute, signed an agreement with a Japanese space research institution in Taipei on Friday to participate in a Japan-led mission that will study the physics of outer space near the Earth.

Signed by Academia Sinica president Wong Chi-huey (翁啟惠) and Institute of Space and Astronautical Science (ISAS) director-general Saku Tsuneta, the five-year agreement represents the first formal space research mission in which Taiwan will work with a world-renowned space institution, Academia Sinica said in a statement.

In Taiwan, the project will be led by the Academia Sinica Institute of Astronomy and Astrophysics in partnership with National Cheng Kung University.

The mission, called Exploration of Geospace (ERG), involves a small scientific research satellite that will study the behavior of highly

charged electrons in the magnetosphere, the region of outer space near the Earth.

That is where the Van Allen radiation belt captures a huge volume of the highly charged energy particles that are the focal point of the study.

Japanese scientists hope that data from the satellite will help them explain how these high-energy

electrons are born as they generate and vanish repeatedly during space storms, and how space storms themselves develop.

The Taiwanese team will deliver one of the project's five key instruments, an LEP-e analyzer that collects low-energy electron data, to help the ERG satellite observe the distribution of energy and density of low-energy electrons surrounding

Earth, Academia Sinica said.

The other four instruments are middle and high-energy electron analyzers, and low and middle-energy ion analyzers.

With all the data collected, researchers "can paint a comprehensive picture of the magnetosphere," said Wang Shiang-yu, a research fellow at Academia Sinica.

By paving the way for future international opportunities in space research, the agreement will allow Taiwanese scientists to access ERG data for advanced research

in geospace physics and increase their world-class space research opportunities.

It will also strengthen Taiwan's capability in building top-notch instruments for space science missions, Academia Sinica said.

Part of the Japan Aerospace Exploration Agency (JAXA), ISAS leads Japanese scientific satellite mission developments.

JAXA is one of the world's major space agencies, together with NASA and the European Space Agency.

scanned from the printed version of Taipei Times

## Taiwan, Japan sign space research mission

**FIVE-YEAR AGREEMENT:** The mission involves a small scientific research satellite that will study the behavior of highly charged electrons in the magnetosphere

Staff writer, with CNA

Sun, Jan 19, 2014 - Page 3

Academia Sinica, the nation's top research institute, signed an agreement with a Japanese space research institution in Taipei on Friday to participate in a Japan-led mission that will study the physics of outer space near the Earth.

Signed by Academia Sinica president Wong Chi-huey (翁啟惠) and Institute of Space and Astronautical Science (ISAS) director-general Saku Tsuneta, the five-year agreement represents the first formal space research mission in which Taiwan will work with a world-renowned space institution, Academia Sinica said in a statement.

In Taiwan, the project will be led by the Academia Sinica Institute of Astronomy and Astrophysics in partnership with National Cheng Kung University.

The mission, called Exploration of Energization and Radiation in Geospace (ERG), involves a small scientific research satellite that will study the behavior of highly charged electrons in the magnetosphere, the region of outer space near the Earth.

That is where the Van Allen radiation belt captures a huge volume of the highly charged energy particles that are the focal point of the study.

Japanese scientists hope that data from the satellite will help them explain how these high-energy electrons are born as they generate and vanish repeatedly during space storms, and how space storms themselves develop.

The Taiwanese team will deliver one of the project's five key instruments, an LEP-e analyzer that collects low-energy electron data, to help the ERG satellite observe the distribution of energy and density of low-energy electrons surrounding Earth, Academia Sinica said.

The other four instruments are middle and high-energy electron analyzers, and low and middle-energy ion analyzers.

With all the data collected, researchers "can paint a comprehensive picture of the magnetosphere," said Wang Shiang-yu, a research fellow at Academia Sinica.

By paving the way for future international opportunities in space research, the agreement will allow Taiwanese scientists to access ERG data for advanced research in geospace physics and increase their world-class space research opportunities.

It will also strengthen Taiwan's capability in building top-notch instruments for space science missions, Academia Sinica said.

Part of the Japan Aerospace Exploration Agency (JAXA), ISAS leads Japanese scientific satellite mission developments.

JAXA is one of the world's major space agencies, together with NASA and the European Space Agency.

Published on Taipei Times :

<http://www.taipeitimes.com/News/taiwan/archives/2014/01/19/2003581636>

Copyright © 1999-2014 The Taipei Times. All rights reserved.

<http://www.taipeitimes.com/News/taiwan/archives/2014/01/19/2003581636>

## Taiwan, Japan to collaborate on space research

2014/01/17 20:51:10

Taipei, Jan. 17 (CNA) Academia Sinica, the country's top research institute, signed an agreement with a Japanese space research institution in Taipei on Friday to participate in a Japan-led mission that will study the physics of outer space near the Earth.

Signed by Academia Sinica President Wong Chi-huey and Saku Tsuneta, director general of the Institute of Space and Astronautical Science (ISAS), the five-year agreement represents the first formal space research mission in which Taiwan will work with a world-renowned space institution, Academia Sinica said in a statement.

In Taiwan, the project will be led by the Academia Sinica Institute of Astronomy and Astrophysics (ASIAA) in partnership with National Cheng Kung University.

The mission, called Exploration of energization and Radiation in Geospace (ERG), involves a small scientific research satellite that will study the behavior of highly charged electrons in the magnetosphere, the region of outer space near the Earth.

That is where the Van Allen radiation belt captures a huge volume of the highly charged energy particles that are the focal point of the study.

Japanese scientists hope that data from the satellite will help them explain how these high-energy electrons are born as they generate and vanish repeatedly during space storms, and how space storms themselves develop.

The Taiwanese team will deliver one of the project's five key instruments, an LEP-e analyzer that collects low-energy electron data, to help the ERG satellite observe the distribution of energy and density of low energy electrons surrounding Earth, Academia Sinica said.

The other four instruments involved in the project include middle- and high-energy electron analyzers as well as low and middle-energy ion analyzers.

With all the data collected, researchers "can paint a comprehensive picture of the magnetosphere," said Wang Shiang-yu, a research fellow at Academia Sinica.

By paving the way for future international opportunities in space research, the agreement will allow Taiwanese scientists to access ERG data for advanced research in geospace physics and increase their world-class space research opportunities.

It will also strengthen Taiwan's capability in building top-notch instruments for space science missions, Academia Sinica said.

Under the Japan Aerospace Exploration Agency (JAXA), ISAS leads Japanese scientific satellite mission developments.

The JAXA is one of the world's major space agencies, together with the National Aeronautics and Space Administration and European Space Agency.

(By James Lee)  
ENDITEM/ls

The Central News Agency's  
English Portal:  
<http://focustaiwan.tw/news/ast/201401170033.aspx>