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Attachment(s):
(1) "status20130330_V0", 700 KB pdf, 3 pages.
(2) "S002_Spotlight_006-007", 132 KB pdf, 2 pages.

: Re:
: (1) Callisto Status Report #40
: (2) supplement to the previous
: ISWI Newsletter (Vol 5, Number 38)
:

Dear ISWI Participant:

There are two items today:

(1) Callisto Status Report #40

It is attached as the first pdf. The opening statement is this:

: Today, there was a CME between 13:22 and 13:33 UT,
: see NOAA event-message:
: 2490 + 1322 //// 1333 SAG C RSP 031-082 II/2 814
: This observation demonstrates the strength of the
: network to get direct access to different wavelength
: ranges at different locations with some redundancy.
:

Yes, I think the word "redundancy" is a key point in many of the ISWI instrument arrays. Even in our high-tech age (especially in our high-tech age?), instruments do fail. So network redundancy is important to a surprising extent. The e-Callisto array and MAGDAS array have some built-in redundancy because of the large number of deployed instruments. Both arrays are truly global in coverage.

Dr Nat Gopalswamy once quipped this: "The sun never sets on the MAGDAS empire." The same can be said of the e-Callisto network.

(2) supplement to the previous ISWI Newsletter (Vol 5, Number 38)

The previous ISWI Newsletter contained this pdf:
: "S002_Blickpunkt_006-007", 105 KB pdf, 2 pages.
It is written in German. Today, I attach its English version. It speaks of the importance of internationalization. And a marvelous example of this is ISWI. It operates on the (correct) premise that space weather science requires

the input of all nations of the world -- their land resources
and their human resources.

Sincerely,
:　　George Maeda
:　　The Editor
:　　ISWI Newsletter

Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

CALLISTO status report/news letter #40

Type II burst observed with e-Callisto network:

Today, there was a CME between 13:22 and 13:33 UT, see NOAA event-message:

2490 + 1322 //// 1333 SAG C RSP 031-082 II/2 814

This observation demonstrates the strength of the network to get direct access to different wavelength ranges at different locations with some redundancy. There were only very few cases with observations of fundamental and harmonics of a type II burst. Unfortunately the server at **FHNW** is out of order, so there is currently no data access until Tuesday, April 2nd. Observatories which actively save their data on the FTP-server at FHNW are on the save side. All other data from observatories where we ourselves get the data may be missing because PERL scripts running on the same server are currently not active. I'll try to get relevant data manually next week. I'm sure there are more observatories with observation of the same burst.

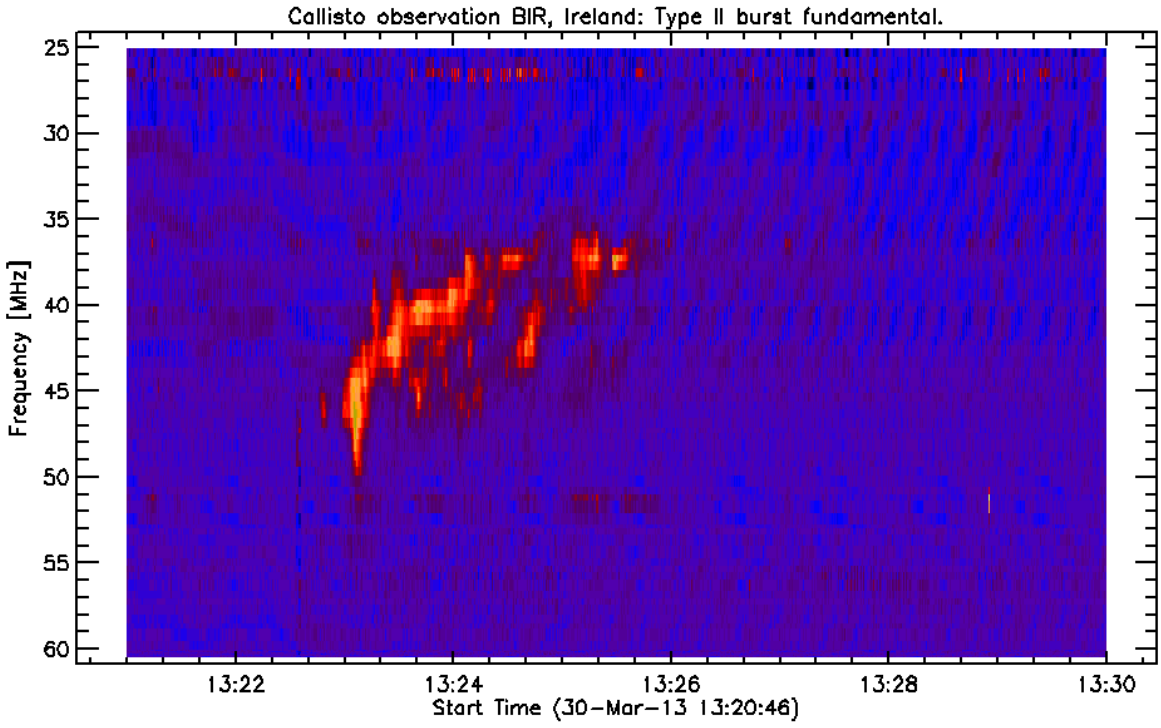

Fig. 1: Low frequency observation at BIR observatory (TCD Ireland). It shows fundamental of a type II burst connected to a CME of March 30th 2013.

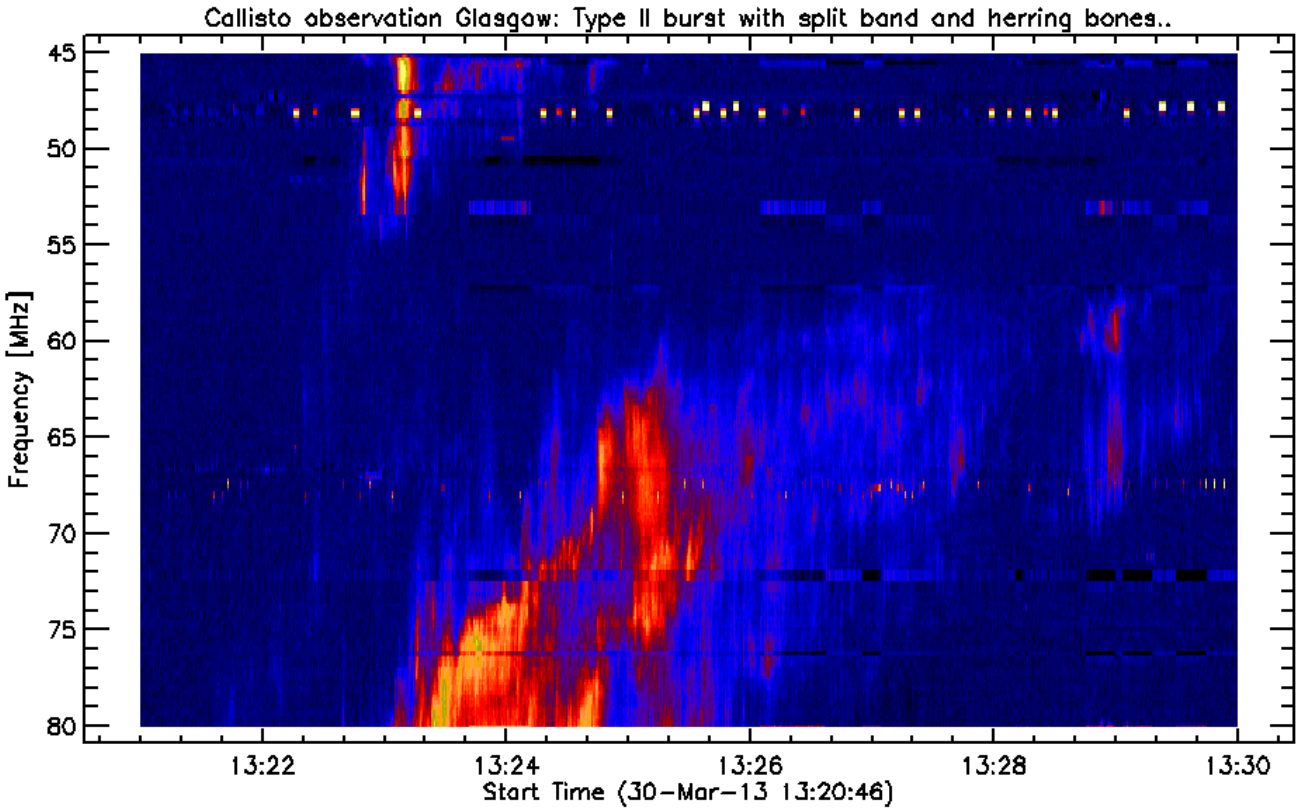

Fig. 2: Mid frequency observation at Glasgow observatory (UK). It shows harmonics of the same type II burst with split band due to magnetic configuration on the sun and also some herring bone structures.

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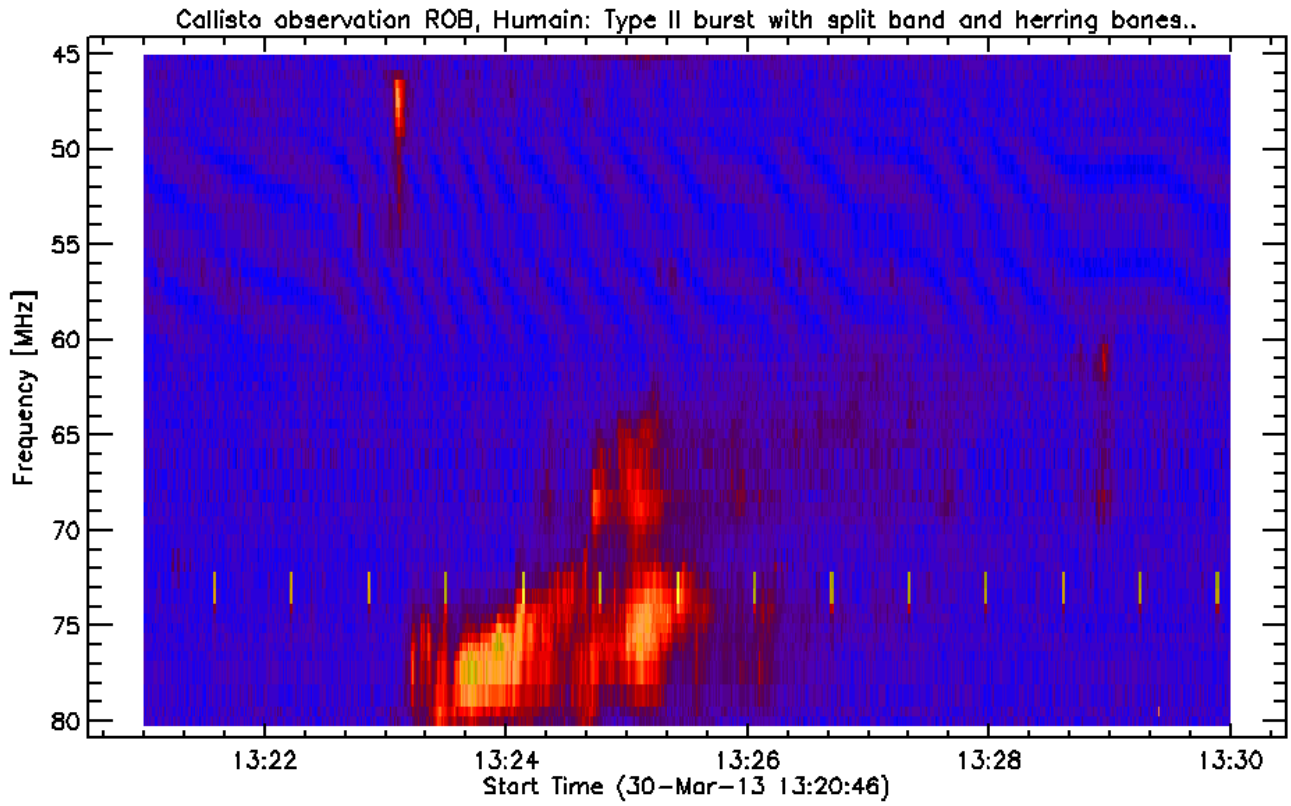

Fig. 3: Similar observation at Humain observatory (Royal Observatory of Belgium). It shows the same type II burst as in figure 1 and 2.

General information here: http://e-callisto.org/

AOB:
CALLISTO or Callisto denotes to the spectrometer itself while e-Callisto denotes to the worldwide network.

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Christian Monstein, Institute for Astronomy, ETH Zurich, Switzerland. email: monstein(at)astro.phys.ethz.ch

We Must Create a Worldwide Network

In his book "The World Is Flat," Pulitzer Prize winner and New York Times columnist Thomas L. Friedman describes how globalization and electronic networks are radically changing our lives: American accountants have anonymized tax returns completed in India, radiologists at US hospitals delegate the evaluation of CT scans to doctors – in India. The country has since become one of the world's largest providers of IT services, earning itself the description – by analogy with China, which rejoices in the title "workbench of the world" – of "back office of the world." Computers, high-speed data transfer via fiber optic cable and workflow software solutions have allowed us to cooperate and compete more and more effectively at the global level. Not just business, but science, too, is nowadays engaged in an accelerated, more complex and geographically broader pattern of international exchange and cooperation.

How should we respond to this dynamic development? Businesses base their decisions on where to locate upon the availability of local skills, infrastructure and access to new knowledge. If it is to maintain its locational attraction, Germany must become a destination of choice for the best scientific researchers and students from across the world. Qualified MINT employees are already in short supply in Germany – according to the German newspaper Handelsblatt, there is currently a shortage of around 150,000 academics in the fields of mathematics, informatics, natural sciences and technology alone. By the year 2030, demographic change will have intensified this situation still further – following a brief interim peak, from 2020 onward the number of graduates will once again decline. At the same time, the international student body is becoming more mobile. Each year, more than half a million citizens of India leave home to study abroad. Given the vast deficit in university places in India, the government has just recently passed a law intended to regulate and simplify access to the subcontinent for foreign universities. Other countries, too, are intensively courting foreign education providers. Countries in the Middle East are investing billions to attract universities from abroad. In 2006, in Dubai, for example, Harvard Medical School established the Harvard Medical School Dubai Center in order to pursue cooperation in the field of medical research and training. Last year, Harvard announced that it intends to set up a graduate school in law in Doha, funded by the Qatar Foundation.

Meanwhile, in 2010, Yale became the first Ivy League university to establish a university campus abroad, in cooperation with

In the contest for talent

the National University of Singapore (NUS). Yale-NUS is intended to usher in a new era of international education. New York University (NYU) has been present in Abu Dhabi since 2010. Around 9,000 students responded to the first call for applications for the just under 200 available places. NYU is now looking to expand in Shanghai. According to its president, as the first global university, NYU is keen to raise the stakes in its efforts to compete with Harvard, Yale and Princeton. In the contest for the finest minds, American universities are establishing themselves in an advantageous position. German universities are latecomers to the export of education – and despite the Excellence Initiative, they lack the gloss. Still,

Photo: Axel Griesch

no German university has made it to the top ten in the Shanghai ranking.

The German Federal Ministry of Education and Research (BMBF) has recognized the problem and called upon scientific organizations to "target specific offers at junior scientists from abroad in order to recruit sufficient talented and well-qualified young people to support the desired growth in research activities." As early as 2000, the Max Planck Society began, jointly with German universities, to develop graduate schools. There are now some 3,000 young doctoral students learning and researching at 61 International Max Planck Research Schools; half of them come from abroad – drawn from more than 100 different countries of origin. Many, having completed their studies, would like to work for a few years in Germany. Well-trained, achievement-oriented and at home in several cultures, they represent a valuable pool of potential employees. The introduction of the Blue Card was an important step, given that, in the past, a large proportion of these foreign students were lost to the German employment market.

But it takes more than talented young people – it is a question of global value chains. More than 90 percent of the world's knowledge originates outside of Germany. In order to share in the worldwide flow of knowledge, research must be put on an international footing. Let us take the example of RNA interference: In 1998, researchers in the US discovered that genes can be suppressed with aid of small snippets of RNA. Just a few years later, Thomas Tuschl at the Max Planck Institute for Biophysical Chemistry succeeded in applying the same mechanism in the cells of mammals. The corresponding patents are held by the Max Planck Society and the Massachusetts Institute of Technology (MIT). The US firm Alnylam Pharmaceuticals is currently engaged in the commercial development of this method through to clinical deployment. Another example: Axel Ullrich of the Max Planck Institute of Biochemistry has shown how targeted interventions can be made in

Sharing in global knowledge flows

the complex mechanism of tumor development. The company founded by him, Sugen, subsequently refined these fundamental discoveries for medical application. Following takeovers first by Pharmacia and later Pfizer, the drug finally came onto the market in 2006.

For the Max Planck Society, international cooperation has long been an essential factor in the fulfillment of our mission. Complex problems can be solved only with the integration of experts in varying fields. Our Max Planck institutes are involved in more than 5,000 projects with over 6,000 research partners in 120 countries around the world. One in two of the Max Planck Society's publications is the product of international cooperation. No other European research organization is so internationally networked. In order to gain access to international leading-edge research abroad, the Max Planck Society – in a manner comparable with the American elite universities – has, in recent years, intensified its presence in important target countries with the goal of exploiting the potential for innovation elsewhere, as well as of discovering talented scientists at an early stage and securing their loyalty.

India, for example, is a key location for computer sciences. For this reason, in 2010, with the support of the BMBF and the Indian Department of Science and Technology, we founded a Max Planck Center in New Delhi as a platform for cooperation between the Max Planck Institute for Informatics in Saarbrücken and the Indian Institute of Technology. A Max Planck Center in the field of neuroscience is currently being established in cooperation with the Hebrew University in Jerusalem. There are also Max Planck Centers working in the field of materials research in cooperation with the University of British Columbia in Vancouver, Canada, with the Riken Institute in Japan and with the renowned Princeton University in the US – to mention just five of the present 14 Max Planck Centers in Europe, North America and Asia.

In addition, the Society now has five institutes abroad, in Italy, Luxemburg, the Netherlands and the US, where the State of Florida recently contributed 186 million dollars to fund the development of the Max Planck Florida Institute. In this way, the Max Planck Society has gained access to the US knowledge market, which continues to lead the world.

Today, no one can afford not to pursue a strategy of internationalization. Richard Edelstein, an expert in international education at the University of California in Berkeley, anticipates that this will have significant effects in the coming 5, 10 or even 50 years. The Max Planck Society is well placed internationally – and is likewise active internationally as a brand ambassador for Germany.

Peter Gruss,
President of the Max Planck Society