

Figure 2. Example of a Splatalogue<sup>2</sup> search for molecular transitions near 220 GHz.

should be at least partially supported as part of astrophysics programmes.

Several possible models to mitigate this problem were discussed, ranging from direct support of these efforts from the observatories, to automatically providing the proper references to be cited whenever data from the original catalogues or calculations are used (similar to the path followed by the particle physics community). Of the various alternatives, the latter seemed to be favoured by the majority of the participants at the workshop. A first step in this direction is already ongoing with the drafting of a Memorandum of Understanding for collaboration between the Köln astrophysical laboratory spectroscopy group, providing the CDMS, and the JPL spectroscopy group, providing the JPL catalogue. At the same time, an effort is ongoing to find general agreement between the catalogue providers and the Splatalogue spectral line database (also functioning as the data provider for a number of additional catalogues) and query tool developed at NRAO. Splatalogue is available<sup>2</sup> and Figure 2 shows an example search. The aim is to provide a common catalogue interface that will be integrated with the ALMA and Expanded Very Large Array (EVLA) observation preparation and data analysis software. A similar path could be followed by the providers of collisional and reaction rates of astrophysical interest.

#### **Proposals**

The participants agreed at the workshop that there is a pressing need to acknowledge and support efforts to secure long-term funding for the community of physicists and chemists who are providing the data necessary to perform the scientific analysis of ALMA data. It was decided to write a White Paper that will highlight the importance of this work for the scientific output of the millimetre and submillimetre observatories. Such a White Paper could

be used as a reference when asking for support from funding agencies.

The production of more advanced chemical network models, radiation transfer codes and source structure codes are the result of astronomical research; obtaining proper credit or funding for developing these is not expected to be harder than for any other astrophysical research project. The issue in this case is more to make sure that codes are available and properly documented for the potential users to obtain the best out of them. It was thus suggested that the ALMA Regional Centres could set up web pages to collect links to the available codes in a homogeneous way and in a single easily accessible location.

The workshop was regarded as very useful as a forum for discussions between astronomers, physicists and chemists. The needs posed by the new generation of millimetre observatories were identified and actions on how to provide data and models were defined. It was suggested that these workshops should be organised on a regular basis to track the progress and new developments both on the side of the astronomers needs and on the new developments with experiments, computations and catalogues.

### Links

- <sup>1</sup> Workshop programme: http://www.astro.uni-koeln. de/projects/schilke/DataNeedsForALMA/Program
- <sup>2</sup> Splatalogue: http://www.splatalogue.net

## The Messenger on the Web

Christopher Erdmann<sup>1</sup>

<sup>1</sup> ESO

As part of a new ESO initiative, under the direction of the ESO Library, all ESO *Messenger* content from 1974 to the present is now fully available on the ESO web. The project involved scanning roughly the first 80 issues of *The Messenger* for which there were no electronic copies available. In some cases, original copies were obtained from retired staff or from the ESO library in Chile. The greater task, however, required the addition, correction and migration of over 3500 records to a database management system. As a result, improved browsing

and search functions are now available on the ESO *Messenger* webpage for all issues from the first, in May 1974, to the present.

Behind the scenes, the journal publication process for *The Messenger* is now handled through a new electronic publishing platform called Marathon. Through Marathon, the *Messenger* editor and layout

and graphic artists can now manage the publication workflow and publish the completed *Messenger* issues directly to the web. Metadata for *The Messenger* can now be easily exchanged through Marathon automatically with the Astrophysics Database System (ADS), the primary literature search tool for astronomers worldwide. Thus author and title information are available in ADS for all *Messenger* articles together with access to the full text.

Additional metadata curation is being planned alongside improvements to the underlying systems and interfaces. In the meantime, *The Messenger* issues and articles are available through the current interface<sup>1</sup>. *The Messenger* can also be accessed through the social publishing website Scribd<sup>2</sup> and visibility has increased through Google.

The Messenger digitisation and archiving project is a result of the hard work and support of Marco Schilk of InduPrint, Lee Pullen, Jeremy Walsh, Jutta Boxheimer, Uta Grothkopf, Martin Cullum, and María

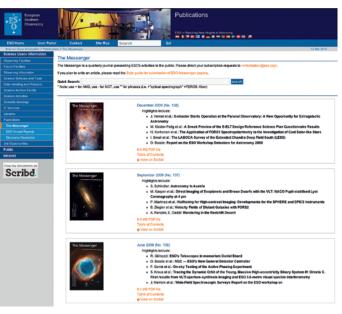


Figure 1. The ESO web page with access to back copies and content of *The Messenger*.

Eugenia Gómez, under the direction of the author. Future developments will be under the direction of Lars Holm Nielsen, Web & Advanced Projects Coordinator for ePOD.

#### Links

- <sup>1</sup> The Messenger: http://www.eso.org/sci/ publications/messenger
- <sup>2</sup> Scribd: http://www.scribd.com/

# New Staff at ESO

#### **Daniel Bramich**

I am a mathematician turned astronomer. I studied maths at Christ's College, Cambridge, from 1997-2000, specialising with my last year in theoretical astrophysics. Not convinced I was ready for a PhD, I spent a year working as a student support astronomer at the Isaac Newton Group (ING) in La Palma, Canary Islands. The time on La Palma sparked my interest in data reduction algorithms and observational techniques, which became an essential part of my work during my PhD, which I carried out under the supervision of Keith Horne in St Andrews. The result of my PhD thesis was a non-result, in that I was looking for a transiting planet and did not find any. However, a null result can be important, and the thrust of my thesis was the calculation of limits on the hot Jupiter planet fraction in the open cluster NGC 7789. Today I am still looking for a transiting planet of my own, and although many have been discovered, they still elude me!

My life seemed to go backwards and forwards between the Canary Islands and the UK, from the sun to the clouds and back again! The last year of my PhD (2004) was spent in Tenerife, and I subsequently carried out short contractual postdocs at St Andrews, Liverpool John Moores University and Cambridge University (2005–2006). By the end of these periods it was clear that my interests and work concentrate on both science

and the algorithms and data used to carry out the science, which also suits my strong mathematical background.

Yearning for some more sun, I spent the next three years back on La Palma as a Support Astronomer for the ING, where I expanded my observing experience with the large suite of instruments available at the WHT. My research time was invested in the technique of difference imaging, and I developed a new method for matching the point spread function between two images, with minimal assumptions about the shape of the matching convolution kernel. The method is now starting to prove more robust than the traditional method, and my implementation is now part of an automatic