

EUROPEAN SPACE AGENCY

ASTRONOMY WORKING GROUP

Recommendation on the selection of the NIRSpec Instrument Science Team

At its 118th meeting held on 13-14 May 2004 at ESA Headquarters Paris, the Astronomy Working Group (AWG) was briefed on the selection process for 6 European members of the NIRSpec Instrument Science Team (IST) for the James Webb Space Telescope (JWST).

The selection process was based upon the terms of the JWST Science Management Plan to ensure a good complement of scientific expertise and an appropriate balance of instrumentation experience (hardware and software) within the IST. The selection committee chaired by the JWST Project Scientist consisted of 2 AWG members, 2 members of the European JWST community and 2 ESA representatives.

In total, 34 applications were received by ESA in response to the Announcement of Opportunity for membership in the NIRSpec IST issued on 17th March 2004. The AWG was impressed by the large number and the high quality of the applications.

Having heard the report presented by the committee's chair and considering the committee's unanimous proposal for membership, *the AWG recommends unanimously that the following candidates be appointed as members of the NIRSpec Instrument Science Team for an initial term of 3 years:*

Arribas, Santiago	(IAC, Tenerife)
Bunker, Andrew J.	(Exeter)
Charlot, Stephane	(IAP Paris)
Franx, Marijn	(Leiden)
Maiolino, Roberto	(Arcetri)
Rix, Hans-Walter	(MPIA Heidelberg)

The proposed team provides a broad spread of expertise as well as a mix of experience with both more senior and more junior scientists as demonstrated below by the summary CV's of the recommended candidates.

Santiago Arribas

PhD IAC (1987)

Senior Scientist, Instituto de Astrofísica de Canarias Santiago

Santiago Arribas is an experienced instrumentalist and observer, having been PI for a number of multi-object and integral field spectrographs for ground-based use. He also has extensive experience in operating space instrumentation, having sought leave from IAC to spend a term as an ESA staff member at STScI (finishing mid-2005) where he serves as Instrument Scientist for NICMOS. As a member of the initial ESA NIRSpec Study Team since 1998, he led several key trade-off studies aimed at optimizing the present design of NIRSpec. Arribas' main scientific interests concern the internal structure, formation and evolution of galaxies.

Andrew Bunker

PhD Oxford (1996)

Lecturer, Exeter University

Andrew Bunker has made significant contributions to mapping the history of star formation and chemical evolution, and the nature of high redshift galaxies. Although primarily an observer, experienced with both instrument development and data reduction, Bunker also has a solid astrophysical grounding and is an expert in exploiting astrophysical diagnostics such as nebular emission line spectroscopy. He also has extensive interest and experience in integral field spectroscopy, an area in which he currently leads several large ground based programmes.

Stephane Charlot

PhD U Paris (1992)

Staff Scientist, Institut d'Astrophysique, Paris

Stephane Charlot is recognized internationally as a world leader in the field of spectral synthesis of galaxies. In collaboration with Bruzual he has developed and maintains the state-of-the-art stellar population synthesis package that has become the de facto reference standard for interpreting galaxy spectra. This package is continually being updated to include the most recent and accurate stellar evolution tracks and most up-to-date template stellar spectra. Lately Charlot has also expanded the code to treat nebular emission lines, a diagnostic of vital interest to planning the exploratory surveys foreseen for NIRSpec.

Marijn Franx

PhD U Leiden (1988)

Professor, Leiden Observatory

Marijn Franx is an acknowledged authority in the general field of galaxy evolution and formation with extensive observing experience using both the largest ground facilities and HST. Although primarily an observer, Franx is at heart a generalist who is well-grounded in instrumentation, data reduction and astrophysical theory and interpretation. He is also an authority on measuring the masses and kinematics of galaxies, the techniques of which one hopes to apply to the much higher redshifts accessible to NIRSpec. Franx is also leading or involved in a number of on-going deep galaxy surveys using VLT and HST.

Roberto Maiolino

PhD U Florence (1995)

Associate Astronomer, Arcetri Astrophysical Observatory, Florence

Roberto Maiolino is noted for his high redshift observational work. Maiolino has extensive experience with near-IR instrumentation and spectroscopic data reduction - and takes a special interest in instrument characterization and calibration, two challenging areas that will require particular attention on NIRSpec. Maiolino's scientific interests and expertise is in the area of the high redshift universe, with emphasis on dust, supernovae and AGN activity in galaxies - interests that nicely complement the expertises of other IST members.

Hans-Walter Rix

PhD U Arizona (1991)

Director, Max-Planck-Institut für Astronomie, Heidelberg

Rix is an internationally recognized authority in observational cosmology. Rix is also a generalist, being comfortable with both instrumentation, data reduction and astrophysical theory and interpretation. Although not primarily a hardware builder, Rix has been closely associated with a number of NIRSpec's predecessors in the form of early ground based near-IR spectrographs that were made possible by the availability of the first near-IR detector arrays. Rix is also leading or involved in several on-going deep galaxy surveys (including the Sloan Survey) using VLT and other ground based facilities - experience that will be of great value in designing the surveys to be carried out with NIRSpec.