Wanna find a job?
Find yourself first

Claudio Melo

Pay it forward talk series
# Observational Astrophysics, Tenure-Track Faculty Position, Univ. of Calif. Santa Barbara - JRID48653

**Submission Dates**
- Post Date: September 1, 2014
- Archive Date: October 31, 2014
- Deadline to Apply for Job: November 14, 2014

## Job Announcement Text:

**Job # JRID48653**

The Department of Physics at the University of California, Santa Barbara is seeking candidates for a tenure-track assistant professor position in observational astrophysics, with an appointment to start in Fall 2015. The astrophysics group currently consists of 11 faculty working in a variety of areas including detector development, exoplanets, cosmology, the interstellar and intergalactic medium, compact objects and high energy astrophysics, galaxy formation and evolution, stellar astrophysics and supernova research. Affiliated groups in the department include gravity and particle astrophysics. Faculty have access to the Keck Observatory and the opportunity to participate in the Thirty-Meter Telescope project. The group has close affiliations with the Kavli Institute for Theoretical Physics, which typically runs two astrophysics programs every year, and the Las Cumbres Observatory Global Telescope Network. Further information may be found at the Department’s website: [http://www.physics.ucsb.edu](http://www.physics.ucsb.edu)

Candidates are expected to have a Ph.D. in physics, astronomy, or a closely related field, and will teach a range of courses in the Physics Department. Applicants must send a statement of research interests, a curriculum vitae, a list of publications, and a teaching statement, and should arrange for three letters of recommendation. All application materials should be submitted via UC Recruit: [https://recruit.ap.ucsb.edu](https://recruit.ap.ucsb.edu)

Applications will be considered starting November 14, 2014 and will be accepted until the position is filled. The department is especially interested in candidates who can contribute to the diversity and excellence of the academic community through research, teaching and service. The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, or any other characteristic protected by law including protected veterans and individuals with disabilities.

**Included Benefits:**

[http://www.hr.ucsb.edu/benefits/welcome](http://www.hr.ucsb.edu/benefits/welcome)
Job Announcement Text:

1. Vacant post: One associate professor
2. 1) Division to belong to: NAQ. Chile Observatory. 2) Duty station: Mitaka, Tokyo, Japan
3. Field of specialty: Applied physics, electric or electronic engineering, or radio astronomy
4. Duties and responsibilities:
   - This position is for a person who will work as a research staff at the Advanced Technology Center of NAQ to develop low-noise heterodyne receivers at millimeter and submillimeter wavelengths for the existing radio telescopes operated by NAQ, including ALMA, and to verify and improve the performance of those receivers operated at those radio telescopes. The successful candidate is expected to drive research and development of the next-generation low-noise heterodyne receivers for the ALMA telescope, according to the scientific requirements. Presently, the following development items are conceived for such receivers, and the candidate is expected to start by leading at least two of them:
   1. Research and development on a low-noise heterodyne receiver for ALMA Band 11 covering the frequency range of 1.0 – 1.8 THz.
   2. Research and development on a multi-pixel (or focal-plane array) heterodyne receiver for the ALMA telescope.
   3. Research and development on a heterodyne receiver with an octave signal-to-noise ratio frequency range.
   4. Research and development on a heterodyne receiver with an instantaneous or IF bandwidth of 20 GHz or more.
   - The candidate is required to have profound knowledge and engineering experience of radio astronomy observation systems and an ability to lead as a senior member of an international ALMA receiver development team. A good communication skill is necessary to build and maintain good relationships with the members of the science and engineering teams, as well as related people (including researchers) in Japan and other countries. The candidate needs to have sufficient English language proficiency to lead engineering/technical discussions in face-to-face meetings, video conferences and teleconferences.
5. 1) Start of employment: As soon as reasonably possible upon selection 2) Term of employment: Indefinite subject to the retirement age of 65.
6. Required academic qualification: At least 3-year experience in relevant research and development on low-noise radio receivers. Preferably Master’s Degree or higher in engineering, science or related field, or equivalent.
7. Application documents: 
Tenure Track Position in Astrophysics at Ensenada, Instituto de Astronomía, UNAM, Mexico - JRID46524

Submission Dates
Post Date: August 1, 2014
Archive Date: September 30, 2014
Deadline to Apply for Job: October 7, 2014

Job Announcement Text:

The Instituto de Astronomía of the Universidad Nacional Autónoma de México (INAOE-UNAM) has openings for junior faculty level, tenure-track positions in astrophysics, at its branch in Ensenada, Baja California, Mexico. Applicants should hold a Ph.D. degree in astronomy or physics, and have at least two years of postdoctoral experience. Preference will be given to candidates less than 45 years old, by the start date. Mexican citizens are particularly encouraged to apply.

Selection criteria include research accomplishments and promise of future achievement as well as opportunities to collaborate with other faculty members in Ensenada. Faculty members are expected to carry out original research and must teach astronomy and/or physics courses at both the graduate and undergraduate level, as well as mentor students.

Institute members have access to Observatorio Astronómico Nacional in San Pedro Mártir (OAN-SPM), Baja California. Astronomers at Mexican institutions can compete for the Mexican share of observing time on the 15.4-m Gran Telescopio Canarias (GTC), the Large Millimeter Telescope (LMT), and also have competitive access to the ESO, the VLA, and to ALMA, via collaboration with the USA National Radio Astronomy Observatory. The Institute is a member of the Transneptunian Automated Occultation Survey (TAOS-II), which is being installed at OAN-SPM, the High-Altitude Water Vapor Radiometer Observatory and the Cerro Tololo Inter-American Observatory, as well as a funding partner of the Sloan Digital Sky Survey, which will use the SBTF-II. The Institute has its own computing facilities and all members have access to general UNAM supercomputers.

Members of the Institute conduct research in most major astronomical and astrophysical fields. Candidates are encouraged to contact individual faculty members to explore potential collaborations as well as review the facilities and instrumentation at the OAN-SPM to identify research opportunities at the site.

Included Benefits:

Health insurance is provided.
Systems Developmental Biology Faculty Position:
Pasadena, CA, United States

The California Institute of Technology invites applications for a tenure-track assistant professor position in the Division of Biology and Biological Engineering. We are interested in candidates who will approach fundamental questions regarding the cellular and molecular basis of development of multicellular organisms, with emphasis on ‘systems’ level approaches. Relevant research areas include but are not limited to gene network and circuit design problems in developmental biology, mechanistic studies of morphogenesis, evolution of developmental gene regulatory networks, etc.

Candidates with strong commitments to research and teaching excellence are encouraged to apply. Initial appointments at the assistant professor level are for four years, and they are contingent upon completion of the Ph.D. degree.
Motivation & Skills
Motivation
(self)

&

Skills
(trust)
Machine gun approach
X
Sniper approach
Machine gun x Sniper approach

- **Machine gun.** Generic application sent around to tens of places, just changing the name of the institution

- **Sniper** (precise and targeted shot). Carefully prepared job application which goes through the hearts of the board members

It has to do with a degree of differentiation that we all have and that we should strive to develop through our life and careers. At the very beginning we are probably acting in a mixed mode.
How can I do such an application?
How can I live a motivated life and inspire trust to myself and to others?
MOTIVATION
Abraham Maslow published in 1943 his work on Human Motivation where he put up a sequence (a hierarchy) of needs which drives our motivation.
How can I keep developing towards the top of the pyramid? It’s a human thing to keep evolving.

Also an important thing: a satisfied need doesn’t motivate you anymore (remember the salary analogy, if you have a strong need to be valued and to create and you get a salary rise, this will calm you down for a while, but as soon as you get used with the extra money, the higher needs will emerge again).
Be proactive

• Between the stimulus and the response is your greatest power - you have the freedom to choose your response.

• Work on the things they can do something about

• Reactive people focus their efforts in the Circle of Concern
Begin with an end in mind

• **all things are created twice.** There is a mental (first) creation, and a physical (second) creation. The physical creation follows the mental, just as a building follows a blueprint.
You have the power to make things to come true. But what do you want to create with this power?
Finding yourself

- Sometimes people find themselves achieving victories that are empty
- Successes that have come at the expense of things that were far more valuable to them
- If your ladder is not leaning against the right wall, every step you take gets you to the wrong place faster.
Mission statement

• Hard and time consuming exercise
• Extremely rewarding
• Values
• Talents
• Dreams
• It is a beacon down the road of life
Notes for personal mission statement.

Love is everything. Give and receive and is the reason to be alive.

Never compromise honesty and truth. They are the foundation of any realization in life.

Cultivate an alert mind. This can only be achieved with a vibrant frequency of the body. It provides the platform to keep the mind focused on the path. All we have is here and now, not in the past.
Be an instrument of change. By giving an example, we teach. Uphold the laws and traditions and become the transformation the dream of time in need.

With love and understanding and example we guide and children to build their own principles.

In all our work, we will create an environment that mirrors reality.

By supporting and nurturing the development of the human spirit.

My role is to nurture and support.

And with this, we grow.

We taught a lot.
Another typical exercise

PICTURE A TYPICAL DAY IN 5 YEARS FROM NOW
The 5 year exercise is a nice one. It’s a simple brainstorming how you see a typical day of your life. After having written that down you can go inside each topic you put there and realize what are the actions that you have to do now in order to make things to come true in the future.

For instance:
I said I see myself being in charge of the kid’s training. This means that in 5 years from now I have to be in good health (exercising, eating well, resting properly), be technically good enough to teach (training hard) and have a solid character to train the kids (integrity).
* I'm back to my training. The Sensei asked me to replace him for a couple of days helping with the kids' classes.

* Checking the weather, it seems that this weekend will be great for surfing. I'm really excited about that.

* Luca is finishing an important lecture to students in an exhibition. She asked to take care of the transportation of the kids in the coming days.

* We have to coordinate about our time. I'm finishing a nice paper about pre-biotic materials in the Planet X. Michael is excited about the result.
Put first things first

• To live a more balanced existence, you have to recognize that not doing everything that comes along is okay.

• There's no need to overextend yourself. All it takes is realizing that it's all right to say no when necessary and then focus on your highest priorities.
Summarizing

• I have the power to choose my actions
• Things are created first in my head (visualization) and then created in the real world (physical creation)
• The two above give a clear sense of priority, so I’m able to put first things first
This means you are in charge
TRUST
You can see trust as a tree, where the roots are your integrity, your intent (thoughts, actions) is the trunk, branches are your skills. And the end product – results – are the fruits.
When the character (meaning/intentions) and actions are aligned this creates a gigantic sense of direction.

TRUST = SENSE OF DIRECTION +
RESULTS = LEADERSHIP
This is an important issue when applying for jobs. They want a leader and the word leader is misunderstood (related to someone with lots of papers or responsible for a big project).
Core Competencies

Managing and Developing Self

<table>
<thead>
<tr>
<th>Competency</th>
<th>Effective Behaviours</th>
<th>Ineffective Behaviours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates Commitment to ESO</td>
<td>- Lives ESO’s values, and behaves in line with ESO goals and regulations. Listens and networks internally and externally in active support of the Organisation. - Sustains individual or team needs in support of the strategic and operational needs of ESO.</td>
<td>- Communicates in a negative way about the Organisation when dealing with internal or external parties. - Pursues only individual or team interests even when it goes to the detriment of the strategic and operational needs of ESO.</td>
</tr>
<tr>
<td>Keep a flexible attitude to change and adapting to changes</td>
<td>- Continually suggests improvements to existing ways of working to create positive change. - Is willing to accept change. Actively supports and promotes changes as an opportunity for development for self and the Organisation. - Is open to new ideas and willing to apply new working processes and techniques.</td>
<td>- Is resistant to change when faced with new situations and speaks negatively about them. - Is not flexible when confronted with new ideas, responds negatively to the use of new techniques and sticks to existing practices.</td>
</tr>
<tr>
<td>Demonstrates accountability for own performance and continuous learning and development</td>
<td>- Understands own role and personal objectives, and how they relate to ESO. - Takes responsibility for own actions, results and quality of work. - Actively seeks and takes on board feedback to improve own skills, knowledge and performance.</td>
<td>- Focuses on personal interests without reflecting on the organisational needs. - Relieves excessive or intense stress for own actions and performance, and demonstrates a competent approach to work. - Shows lack of interest in listening to and taking on board others’ feedback to develop self.</td>
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# Leadership Competencies

## Managing and Developing Self

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<td><strong>Lead with strength and credibility</strong></td>
<td>- Leads by example and generates energy, enthusiasm and commitment to ESG mission and goals. &lt;br&gt; - Strives for professional excellence and high quality work for self and team. &lt;br&gt; - Demonstrates accountability for the team’s actions and performance. &lt;br&gt; - Actively supports staff’s health and safety, and wellbeing.</td>
<td>- Makes little effort to foster enthusiasm and personal commitment to ESG mission and goals. &lt;br&gt; - Fails to meet professional and quality standards for self and team. &lt;br&gt; - Exhibits personal accountability and holds others accountable for problems and performance is substandard. &lt;br&gt; - Is not considerate of staff’s health and safety, and wellbeing.</td>
</tr>
<tr>
<td><strong>Decision making</strong></td>
<td>- Involves all concerned parties in the decision making process, makes timely decisions and explains them to staff promoting transparency and trust. &lt;br&gt; - Behaves consistently with decisions.</td>
<td>- Takes decisions without involving other concerned parties or providing explanations. Is too quick or hesitant to make decisions leaving critical issues unresolved. &lt;br&gt; - Regularly changes own decisions without explanations.</td>
</tr>
<tr>
<td><strong>Dealing with stress and ambiguity</strong></td>
<td>- Manages own emotions and demonstrates clear and positive thinking in stressful and ambiguous situations. Is prepared to take risks and tough decisions when needed.</td>
<td>- Lowers control of own emotions and focus in stressful or ambiguous situations to the detriment of staff’s motivation and effectiveness. Does not take risks and responsibility when tough decisions need to be made.</td>
</tr>
</tbody>
</table>
What is leadership????

5.1.2 Associate Astronomer

In addition to Assistant Astronomer credentials:

- Scientific level: recognised as a scientific leader of astronomical or instrumental and experimental research by experts in own area of research; fosters collaborative projects with other astronomers; engages in scientific exchanges with the ESO community, supervision of graduate students and post-doctoral researchers
Management is a bottom-line focus: How can I best accomplish certain things? Leadership deals with the top line: What are the things I want to accomplish?

Management is doing things right; leadership is doing the right things.” Management is efficiency in climbing the ladder of success; leadership determines whether the ladder is leaning against the right wall.
You move away from the center to gain perspective and start to realize the other actors/stakeholders and how they are connected. The realization of these connections gives you a better idea where and how you can use your talents to contribute to your organization or the one you are applying to.
Do I need to be a manager to exercise leadership?
The point being that before having a formal authority you can develop a moral authority and through your actions transform/influence your local reality – this is leadership.

“To Be is to Do”

Socrates
All of us, from students to staff members we have the opportunity to exercise leadership that can be put forward in a job application. This was also strongly stated in Dimitri’s presentation.

- Envisioning
- Planning
- Team-work
- Conflict management
- Accountability
- The grit to lead task until the end
- ...
What about the rifle?

• With a clear sense of direction and leadership you are now in a position to write a much solid application
Last aspect

- Present your self as a solution to a certain need that the organization has
This requires a lot of research about your potential employer

• Mission statement
• Strategic plan (if they have one)
• Opportunities of the market (in our case – future scientific niches)
• Talk to people who know the place you are applying to
• In the machinegun you are just another one
• In the rifle approach you are the solution to a certain need (present/future)
• Sometimes they don’t even see the opportunity you can create – make them see it.
Very strong application

Your Talents & Motivations

The needs of your employer
Letter removed

Very strong candidate with highly valued skills for the position. But the letter doesn't address any need of the potential employer, how the candidate's expertise will be an added a value to that organization (technically, scientifically).

Even if you don’t have a huge experience required to the position (for instance because you have just finished your Ph.D.), you can at least share why you decided to apply (you fell inspired by the organization, or it is a dream, or it will challenge to grow). You can also stress general skills that demonstrate you can learn, you are able to get results, that work well in teams. As Dimitri said, it is the board to decide if you are suitable or not, not you.
In this cover letter for the position of the head of science written in 2010, I put in practice all that I have discussed in my talk. When the position came I had a feeling that my skills and personal mission were perfectly aligned with the needs of the organization (for that position). It was a strong call for me. To leave my comfort zone and to contribute to ESO in this aspect.

The letter was limited to one page. It presents a vision and how can I fit in that vision. There is no mention about the implementation plan. This was discussed in the interview.
Some references

- The 7 habits ([habits 1, 2 and 3](#))
- The 8th habit
- The Speed of Trust
- Sniper strategy: [Getting any job you want](#)
- First things first
- Ted talks:
  - [Starting with why](#)
  - [Motivation at work](#)