

Astronomy outreach in hospitals and retirement homes

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Abstract. Various astronomy outreach programmes have been elaborated in the past few years in France in the direction of hospitalized people, or persons living in retirement homes.

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1. Introducing the players

The first astronomy outreach programme for hospitalized children or elderly people in retirement homes (as well as incarcerated people) was initiated in 2004 by Didier Barret, an astronomer at the Centre d'Études Spatiales des Rayonnements in Toulouse. He and his colleagues organized an associative structure called “Les Étoiles Brillent Pour Tous” (“The Stars Shine For Everyone”) within Observatoire Midi-Pyrénées (Bhattacharjee, 2004; Abbott, 2005). This group of scientists (~30 and growing), benefiting from a strong local and regional support, has organized more than 100 events in the 2004-2006 period, including 30 in hospitals and retirement homes. One of the most attractive of these events was a visit to the Observatoire du Pic-du-Midi, situated at ~2900 m altitude in the Pyrénées, by a small group of children from Hôpital La Grave in Toulouse.

In 2005 at Observatoire de Paris, Dominique Proust, Danièle Briot, and myself started an astronomy outreach programme called “Astro Vers Tous” (“Astro Towards Everyone”) directed at people with specific needs. These include hearing-, vision- or mobility-impaired people, as well as hospitalized or incarcerated people. Specifically for hospitalized people, we initiated a monthly radio programme in collaboration with the Radio-Hôpital association. This is a one-hour live programme aired on the internal television network of Hôpital Ambroise-Paré in Boulogne-Billancourt, near Meudon. The same programme is also broadcasted via Internet at two other hospitals, in Paris and in Reims. So far, a total of 45 programmes have been aired with topics ranging from astronomical calendars to the physics of solar system objects, stellar or galactic physics, black holes, etc. Radio-Hôpital also holds regular all-afternoon talk shows on specific themes. Most of the time, it is easy to find an astronomical topic that fits well with the chosen theme (e.g. “small solar system bodies” for the “potato” theme).

Within the same structure, and with support from the French professional astronomical society (Société Française d'Astronomie et d'Astrophysique), we also put together an exhibit consisting of 100 self-explanatory posters covering all topics of astronomical research. This exhibit (or parts of it) has been shown in various hospitals in Paris, Boulogne-Billancourt, and Caen.

Another player in this area is “Planète-Sciences”, a nation-wide associative structure dedicated to science education for the youth. The “astronomy” section has also started an outreach programme for ailing children inside a number of hospitals in and around Paris. Their events include planetarium shows (using an inflatable structure), conferences

and slide-shows, model-building or rocket-launching workshops, etc. In 2008-2009, they were able to reach out to nearly 250 children during about 20 half-day sessions.

In Normandy, the amateur astronomy group "Asnora" holds regular sessions for children following their scolarity in the Caen Regional Hospital. Specifically, they organized a two-day event on the occasion of "Fête de la Science" (an annual Science Fair sponsored by the French Education Ministry), including conferences, workshops, and poster exhibits.

Another associative structure in the Paris area, called "Les Étoiles pour Tous" ("Stars for Everyone") and headed by Jean-François Soulier, has developed outreach events for institutionalized children with mental disabilities, among other activities offered to disabled people.

One should also mention a more general science outreach programme called "Les chercheurs font rêver les enfants malades !" ("Researchers Make Ailing Children Dream!") led by the French National Research Center (CNRS), encouraging scientists to visit hospitalized children.

2. Some specifics of outreach in the medical environment

Naturally, there are specifics in holding outreach events inside hospitals and retirement homes. For one thing, one has to accommodate for the constraints associated with the medical care of the patients. Also, the attention span of the individuals tends to be shorter than in "normal" settings. "Fun" is the keyword here: a serious tone of voice needs to be avoided; simple examples or humorous metaphors are welcome; whenever possible, active participation of the individuals should be encouraged rather than passive listening. The main objective is not so much teaching astronomical concepts, but rather stimulating the imagination and favoring an escape of the mind from a sometimes painful situation. The rewards are great not only for the participants on the "receiving end", but also for the people actually producing the outreach activity.

3. Future developments

On the occasion of the International Year of Astronomy, a coordinating structure has been taking shape in France with the aim of fostering the development of outreach activities towards disabled people. In October 2008, a well-attended forum "Astronomie et Handicap" ("Astronomy and Disability") took place during the "Journées du Ciel et de l'Espace", an annual gathering of professional and amateur astronomers. There, it was decided to set up a section dedicated to outreach activities for the impaired people as part of the "Porte aux Étoiles" website (<http://www.porteauxetoiles.fr>). A synergy between the many IYA2009 events and this specific type of outreach will no doubt emerge, as for example the possibility of showing videotaped conferences or holding adapted workshop activities in the hospital environment.

References

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Bhattacharjee, Y. 2004, *Science* 306, 405