

THE KOREAN TYPE LARGE-SCALE ASTROFEST

Young-Sook Ahn , Han-Bae Yoon, Seo-Gu Lee, Dong-Joo Lee,
Hong-Jin Yang, Byung-Hee Min, Kyoung-suk Lee, In-sung Yim
Korea Astronomy and Space Science Institute

Abstract

KASI(Korea Astronomy and Space Science Institute) has held star festivals from the beginning and 2006, this year, meets the 32nd. KASI has been in charge of the star festivals of its own till now and also has supported the star festivals by local astronomical organizations. However, the festival in April of 2006 will be jointly held by 10 organizations relevant to the stars and the universe parts. This large-scale astrofest can be considered an unique type in star festivals.

The program of the festival, not to mention the traditional star observation, will be made up of the star observation contest for the elementary, middle and high school students, the concert with the stars in the night sky, 'Challenge! Golden Byul', the quiz game for learning astronomical knowledge, and the lecture answering the mysteries of the universe. In the festival, each participating organization is supposed to provide the public with various things by opening an exhibit or by displaying PR materials.

Also, KASI is planning to support local star observation meetings actively in union with all the astronomical organizations in Korea and to promote the distinguished observation meetings according to the local characteristics.

The meetings mentioned above is expected to give astronomy wider publicity, to help increasing the amateur astronomers, and moreover to improve the scientific minds of the public. In this presentation, we are going to examine how this large-scale astrofest works to the public and how it influence the science popularization

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1. Introduction

Development of a country should include that of science, and also the scientific development should not be led by a certain in-group. The real development of science is made in the sympathy and response with the majority of the general public. That is, the development should be in proportion to the extension of base population which enables more people to understand science and apply their scientific knowledge to their lives. However, the publicity of science for general public is not something plain when we consider the recent worsening situation that shows the preliminary university students evade to major science and engineering. Lately, the government, with "Science Korea" as a slogan, is trying hard efforts to make the general public to feel friendlier with science. Accordingly, each research institute is developing various programs to help the people to understand more science with interest.

Astronomy, as one of many scientific fields, is one of the most attracting fields that arouse people's curiosity. Anyone can be into the beauty of shining stars in dark sky. However, how many people see the stars with telescopes not with their naked eyes? Definitely not many can see them with telescopes. Astronomy is a scientific field which can see the light after a long-term investment of a huge sum of money for research. Therefore, it is urgently required to introduce astronomy to the majority of people who are not aware of this situation for the development of astronomy.

At this moment, the people who dream to study universe are increasing more and more, and all countries of the world are applying astronomical field of all the other to publicize science. Generally all astronomical fields of the world help the public to understand astronomy by various ways such as opening their observatories, exhibiting astronomical pictures, and providing open observation.

Accordingly, Korea Astronomy and Space Science Institute(hereafter as KASI) has performed astrofests for general public. The astrofest becomes a good opportunity to teach people the mystery of universe and further astronomy by showing the stars with telescopes. The astrofest, unlike the existing foreign astrofests that only the amateur astronomers enjoy, shows general public the stars with telescopes and provide them what astronomy is like. Especially, the recent astrofest in April this year, held jointly by 10 agents, was an unprecedented large-scale event, which had about 70,000 visitors.

2. History of KASI Astrofest

KASI held the 32nd astrofest in April this year. The astrofest of KASI started its first event with a name 'Star Observation Meeting' in 1975 with KASI's establishment. The name changed into 'Astrofest' in 1993(the 19th) which has been used since then. At the early stage of this astrofest, KASI was located in the building of Korea Advanced Institute of Science and Technology, and the near-by area was highly commercialized that it was not easy to secure proper space. After all, the astrofest was held on the roof of the building. At that time, 'Astronomy' itself was a very unfamiliar word to many of the general public, and lots of visitors came to see the moon and planets. However, the meeting was held at the roof of the building at night and the situation aroused security problem. After all, meeting place was moved to the square of Korean Children's Center while the observation meeting was jointly held with Seoul Korean Children's Center from the 7th in 1981. At that time, the Children's Center was located in the Children's Grand Park, so the interception of lights was possible, and also the danger of safety accident was rare. Also, the children's center was possessing a planetarium, an artificial star projector, so the meeting from the 7th, which got very popular, could be held even on daytime or cloudy days by using the planetarium which differentiated the observation meeting from the previous. Additionally, the meeting space became bigger that the exhibition of astrophotographs started. The star observation meeting continued until KASI moved to Taejon in 1985(the 11th). After the movement of KASI to Taejon, KASI building square became the place for the star observation meeting, and from that time many kinds of telescopes such as optical, radio, and solar could be exhibited together with the astrophotographs. However, the planetarium was not provided. The KASI square had been used as the meeting place until 1989(the 15th) because astronomy was not well-known in Taejon, and because too many people gathered there. The meeting was held in different places like Taejon high school in 1990(the 16th) and National Science Museum from the 17th to 21st to show more people the mystery of universe, and that time KASI again could use the planetarium of National Science Museum along with video play. In 1996, the construction of Bohyunsan Observatory was completed, and the 22nd meeting was held at Bohyunsan Observatory in remembrance. Afterward, the 23rd, and 24th meetings were held in Taejon Education and Science Research Institute. From the 26th to the 31st, the meetings were held in KASI square again, and other near-by institutes started taking care of their own star observation meetings at the similar times. Consequently, the visitors were not as they used to be.

3. Change of Participants in Astrofest

In the early execution of the astrofest, KASI was the only agent. Till then, other astronomical organizations were not responding to the purpose of showing the stars to the general public. However, from the 7th meeting, Seoul Children's Center joined in KASI's astrofest, and opportunely the amateur astronomers became more active around the time. From the 9th of 1983, 7 organizations including the universities with astronomy department, local students and science museums started participating in the joint open of the astrofest and the participants increased gradually. This does not mean all the joint participants to hold the astrofest in one place at the same time, but to open the astrofest in each local area according to its local situation and inhabitants. The number of participants in the astrofest had increased around 1 or 2 without big change, and from the 23th of 1997 started to show a drastic increase of plus 20 participants. In case of 2005 and 2006, about 30 participants joined in the astrofest. This means astronomical organizations also has increased, and the requirement on astronomy is getting bigger. Figure 1 below shows the number of annual participants in the astrofest which are categorized into university, student science museum, and the other,

As you can see on Fig.1, the universities has decreased, and now they hold their own astrofest. On the other, the student science museums has been joined steadily. The other participants are the astronomical organizations which does not belong to the previous categories, and it is clear to see the increase of the organizations along with the growth of municipal or private observatories in recent years.

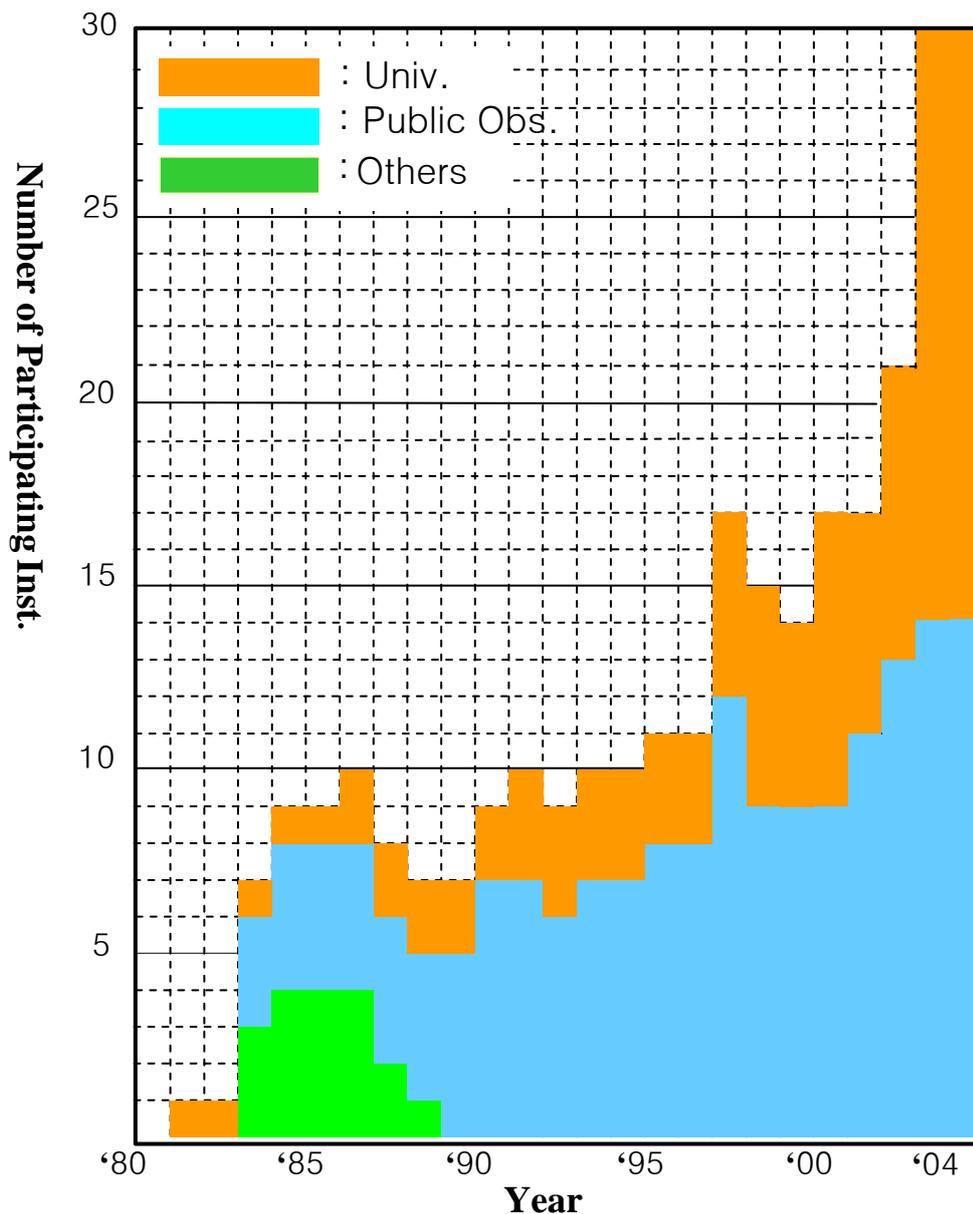


Figure1. Increase in number of Annual Participants in Astrofest

4. 2006 Korean Astrofest

For recent years, the 3 agents, KASI, National Science Museum, and Education and Science Research Institute, had held its own independent astrofest respectively at a similar place in April remembering the Scientific month, and sometimes the astrofests were held no less than 3 times in a week. Of course, in consideration of the lunar phase, the date of each astrofest could not be different from one another. However, the astrofest is one of the most effective ways to get closed to the general public with science not to mention the importance of observation of planets and stars, and this year, 2006, the 10 organizations made a decision to hold a joint large-scale astrofest to avoid the overlapping of the events in a place. This kind of joint astrofest by 10 participants is unparalleled in the world.

The program of this astrofest is shown on Table 1 and 2. As shown in the table, the astrofest open for 2 days, and one-day program was operated in day and night time. Also, the place of events was focused on National Science Museum and Education and Science Research Institute, and lectures were given during the day time. For visitors' convenience, the entrance and parking were all free. At night, the special exhibitions were set around Kumdori Land and Expo Park, and scientific lectures and star observation made up the program.

The program, as a science festival, included 9 scientific lectures, 5 star concerts under the star light, and 4 constellation explorations using planetarium. Also, 3 times of quiz programs such as 'OX quiz' and 'Challenge! Golden Byul' were given. At the 1st night, an astronomical observation tournament was open for the students in schools, and around 90 teams from each astronomical circle in schools took part as a great success. Kumdori's Return Show, got a great response from the crowd with the story that Kumdori who returned to the earth in 12 years select astronauts.

This astrofest, instead of the routine which has been in KASI square or Science Museum, was open in Kumdori Land which can accommodate families. Probably the best place can be a quiet countryside, however, that kind of place has a problem of access. In astrofest, the observation at night is the main event and therefore, the place desperately requires the easy access and safety of the people.

During the 2006 astrofest, a survey on customers' satisfaction was carried out, and surprisingly many of the respondents said they are not very aware of the stars to the question if they have seen stars before this astrofest. Amusement facilities for family like Kumdori Land are mostly with lots of light, however, it is no problem to see the moon or planets with telescopes if the lights on any specific points of the square are turned off. Also, for the people who hardly know about astronomy or who rarely see the stars, the moon or planets are supposed to be a greater memory rather than the stars which look like small spots. Preferably, more families will be motivated to gather together with the family facilities near them. The photos taken during the astrofest are shown from Figure 2-5.

5. Conclusion

The statistical data on the number of visitors during the astrofest are not specific yet, however, each related participant estimate that the visitors are 70,000 in total (The 1st day-40,000, The 2nd day-30,000). These visitors could access to all the scientific fields by looking around the National Science Museum and Education and Science Research Institute during the day, and also they could feel what astronomy is like by observing the stars in Kumdori Land and Expo Park at night.

As shown in 2006 Korean Astrofest, the scene of festivals in which people can meet and talk naturally helps them feel closer to science. This astrofest must have helped the general public get friendlier to astronomy and space science, and also this is one role for faster achievement of Science Korea.

Also, the joint open of the astrofest by several agents, compared to by an independent agent, got more synergy effect at the aspects of exhibition, economic saving, and public relation. Each agent cannot independently plan this kind of large-scale astrofest in consideration of the cost, manpower, and public relation. Additionally, people nowadays are more interested in the large-scale and informative events. Therefore, 2006 Korean Astrofest was satisfying the both aspects. The survey tells that the respondents mostly wanted to come again to this type of astrofest.

Thirdly, many science festivals with general public are visited in family units, and that means the place of festival should be easily accessible and enjoyable. The program which includes exhibition view, amusement, star observation and scientists' lectures was effective for the attraction of families.

Finally, the astrofest shows the efforts to diversify the program. As mentioned in the early history of astrofest, the early program was made up of science lectures, astrophotograph exhibition and telescope settings for star observation. However, the program became diverse, and constellation explorations were added. From 2005, 'Challenge! Golden Byul' which was newly made like 'Challenge! Golden Bell' has got students' hearty attention. This year, the star convert also was supplemented to accentuate the romantic atmosphere, and family visitors were attracted to the tournaments of making telescopes or cars with blocks. Besides, the various programs like astronauts in costume, exhibition of meteoric stones from universe, Kumdori's Return Show, and display of fireworks etc. gave people restless fun.

Table 1. 2006 Korean Astrofest(Taejon) Program: The 1st day

	Events	Time	Place	Note
Comm-on	Exhibition	10:00 ~ 21:30	Kumdori Land	KARI
	Exhibition	10:00 ~ 21:30	Kumdori Land	KRNAMU
	Astrophotograph	10:00 ~ 21:30	Kumdori Land	KASI
Day	Block Making	14:30~15:30	Kumdori Land	
	Science Lecture1	14:30~15:20	Taejon Education & Science Research Institute	NSM
	Constellation Exploration1	13:20~14:00		
	Science Lecture2	14:20~15:00		KASI
	Constellation Exploration2	15:20~16:00	National Science Museum	
	Star Concert1	16:20~16:50		
	과학강연 3	17:10~17:50		KASI
Night	Star Observation1	18:00~21:30	Expo Park	TESRI
	Challenge! Golden Byul1	18:00~19:00	Kumdori Land	
	Star Concert2	19:00~19:30	Kumdori Land	
	Opening	19:30~20:00	Kumdori Land	Fireworks
	Star Concert 3	20:00~20:30	Kumdori Land	[Friends] Concert
	Students Observation Tournament	19:30~21:30	Expo Park	TESRI
	Science Lecture4	20:00~20:30	Kumdori Land	KARI
	Science Lecture5	20:30~21:00	Kumdori Land	Prof. K.C. Cho

Table 2. 2006 Korean Astrogest(Taejon) Program: The 2nd day

	Events	Time	Place	Note
Comm-on	Exhibition	10:00 ~ 21:30	Kumdori Land	KARI
	Exhibition	10:00 ~ 21:30	Kumdori Land	KRNAMU
	Astrophotograph	10:00 ~ 21:30	Kumdori Land	KASI
Day	OX Quiz	13:00~13:50	Taejon Education & Science Research Institute	
	Block Making	14:30~15:30	Kumdori Land	
	Science Lecture 6	14:00~14:50	Taejon Education & Science Research Institute	KASI
	Constellation Exploration3	14:20~15:00		
	Constellation Exploration4	15:20~16:00	National Science Museum	
	Star Concert4	16:20~16:50		
	Science Lecture7	17:10~17:50		KASI
Night	Star Observation2	18:00~21:30	Expo Park	TESRI
	Challenge Golden Byul2	18:00~19:00	Kumdori Land	
	Star Concert5	19:00~19:30	Kumdori Land	
	Kumdori's Return Show	19:30~20:00	Kumdori Land	Fireworks
	Science Lecture8	20:00~20:30	Kumdori Land	KARI
	Science Lecture9	21:00~21:30	Kumdori Land	TCO



Figure 2. Visitors for Observation with Telescopes..



Figure 3. Visitors watching Kumdori's Return Show



Figure 4. Visitors watching the Saturn



Figure 5. Students participating in 'Challenge! Golden Byul'