

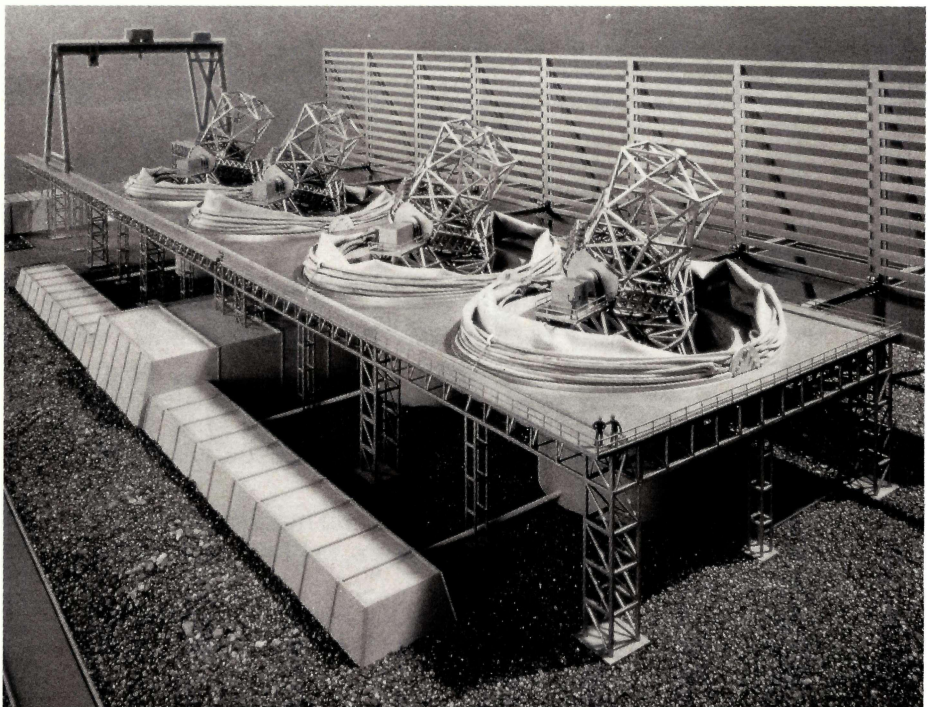
Halley's comet as recorded on 14 January in Miami, Florida, by a Notre Dame/Fermilab group using an 11 inch Cassegrain telescope together with detection and data acquisition systems developed to handle scintillations in an experiment at Fermilab to study the decays of particles carrying the charm and beauty quantum numbers.



Chicago reminded his audience that the implications of classical general relativity are far from exhausted.

In conclusion, Sciama hoped that the advent of the Space Telescope (hopefully not delayed too long) for observational astronomy, of new particle physics machines, and of the theoretical idea of superstrings should ensure that the next CERN / ESO meeting, scheduled for Bologna in 1988, should be particularly exciting.

by Gordon Fraser



Artist's impression of the 16 m 'VLT' optical telescope planned by the European Southern Observatory. Beams from the four 8 m unit telescopes would be recombined to form the final images. Because of its size, VLT would also dispense with the traditional domes covering the telescopes in favour of inflatable covers.

(Photo ESO)

Big Science

Astronomy, like particle physics, has become Big Science where the demands of front line research can outstrip the science budgets of whole nations. Thus came into being the European Southern Observatory (ESO), founded in 1962 to provide European scientists with a major modern observatory to study the southern sky under optimal conditions.

Before becoming installed in its Garching, near Munich, headquarters, ESO found a temporary European home at CERN.

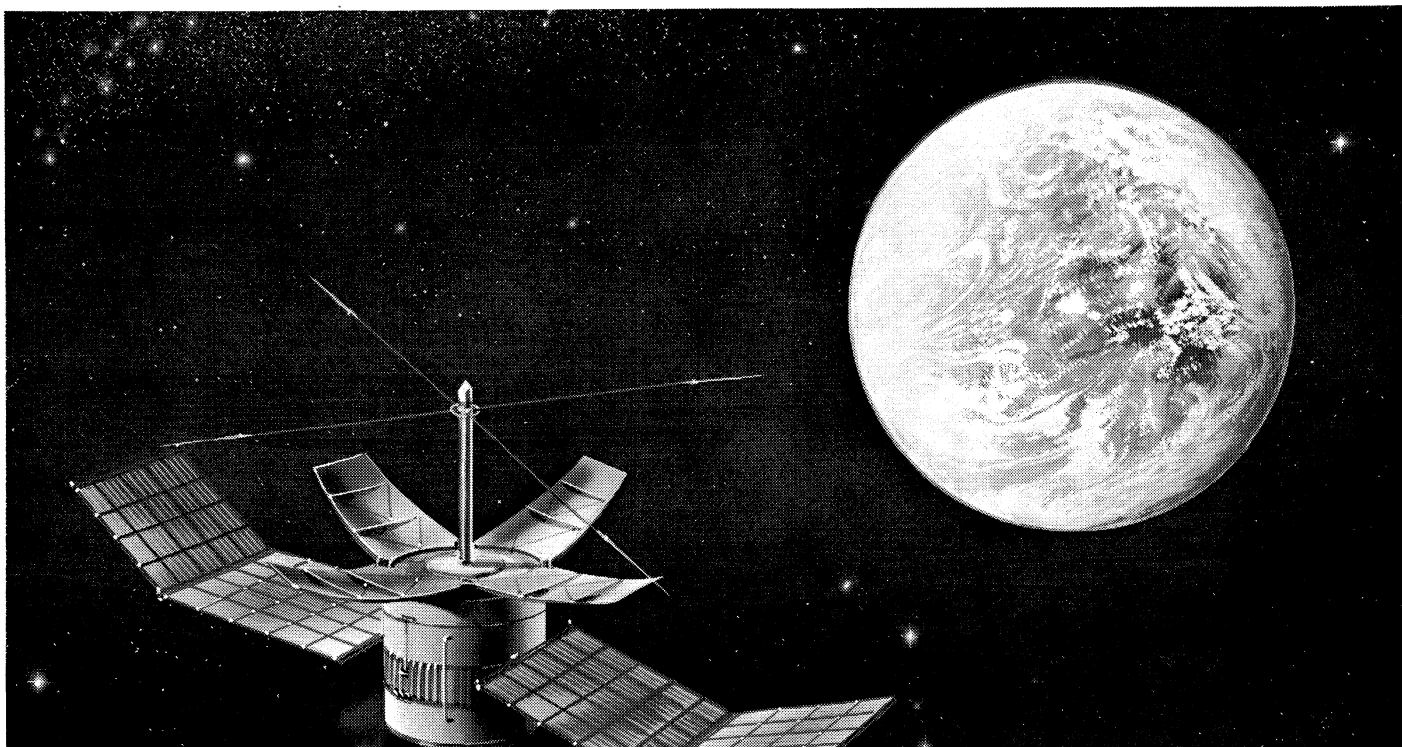
Reflecting this association, ESO was co-sponsor with CERN of the recent 'Symposium on Cosmology, Astronomy and Fundamental Physics' in Garching.

The largest instrument currently in use at ESO's Observatory in Chile is a 3.6 m telescope. From the beginning in 1976 this has been heavily oversubscribed. When Italy and Switzerland joined ESO in 1982, a 3.5 m 'New Technology Telescope' project was launched. Looking further ahead, ESO is planning an ambitious 16 m instrument to become one of the world's largest optical tele-

scopes during the next decade.

Envisaged as an array of four separate 8 m instruments, this 'VLT' project would break new technological ground in many areas, reducing its unit cost compared with previous big telescopes. Among the VLT innovations are interferometric recombination of the beams from the separate unit telescopes and 'active optics' to compensate for image degradation in real time.

VLT would require an additional 300 million deutschmarks of funding, expected by ESO to be available by late 1987.



Setting the Universal Standard in the Scientific World

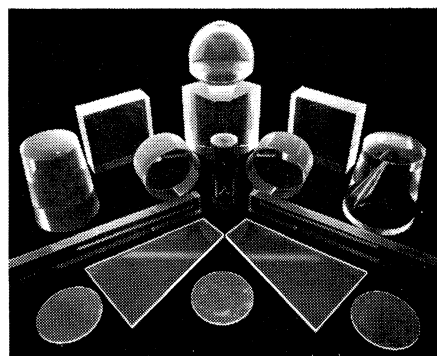
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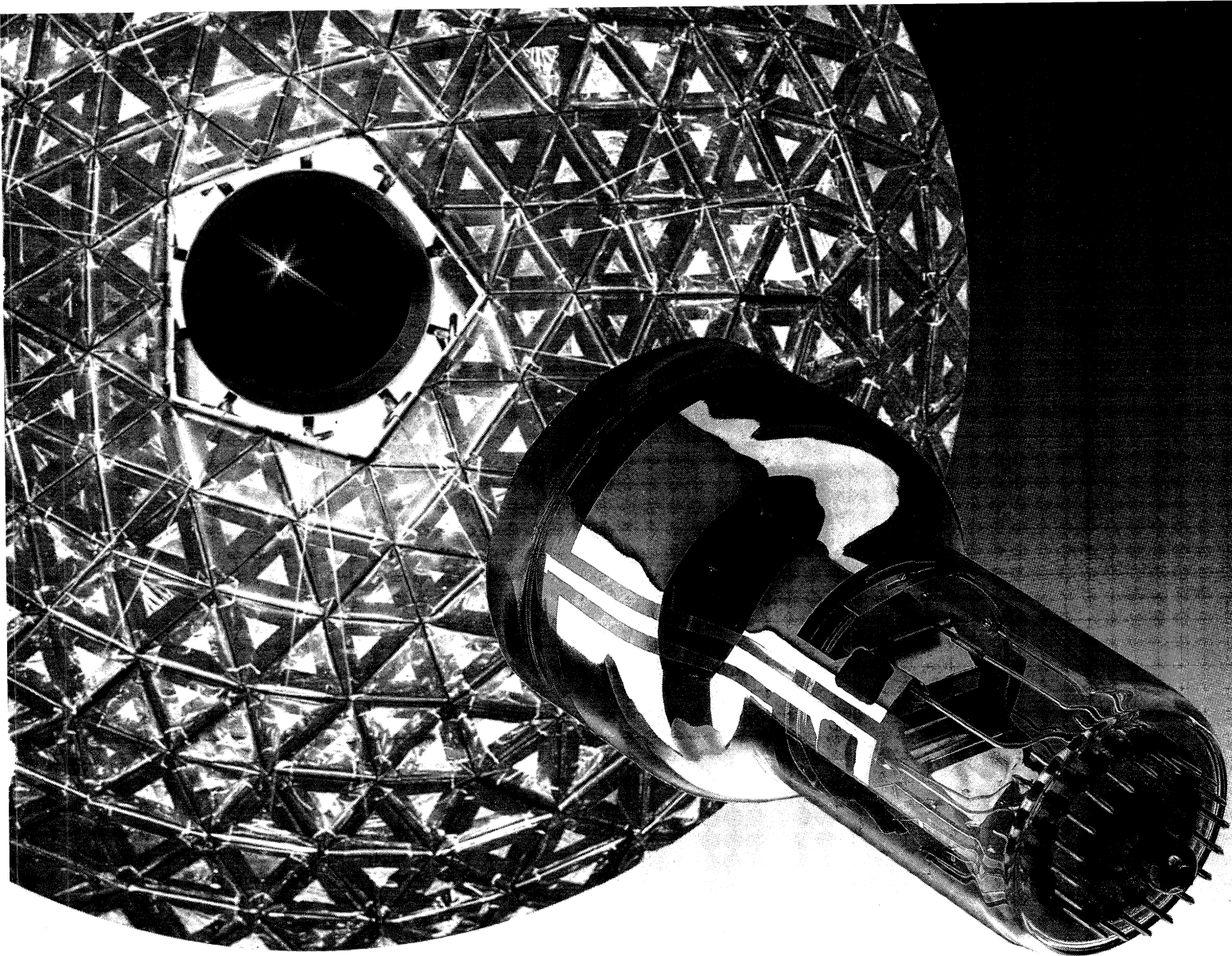
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Plastic ball photo courtesy of LBL/GSI

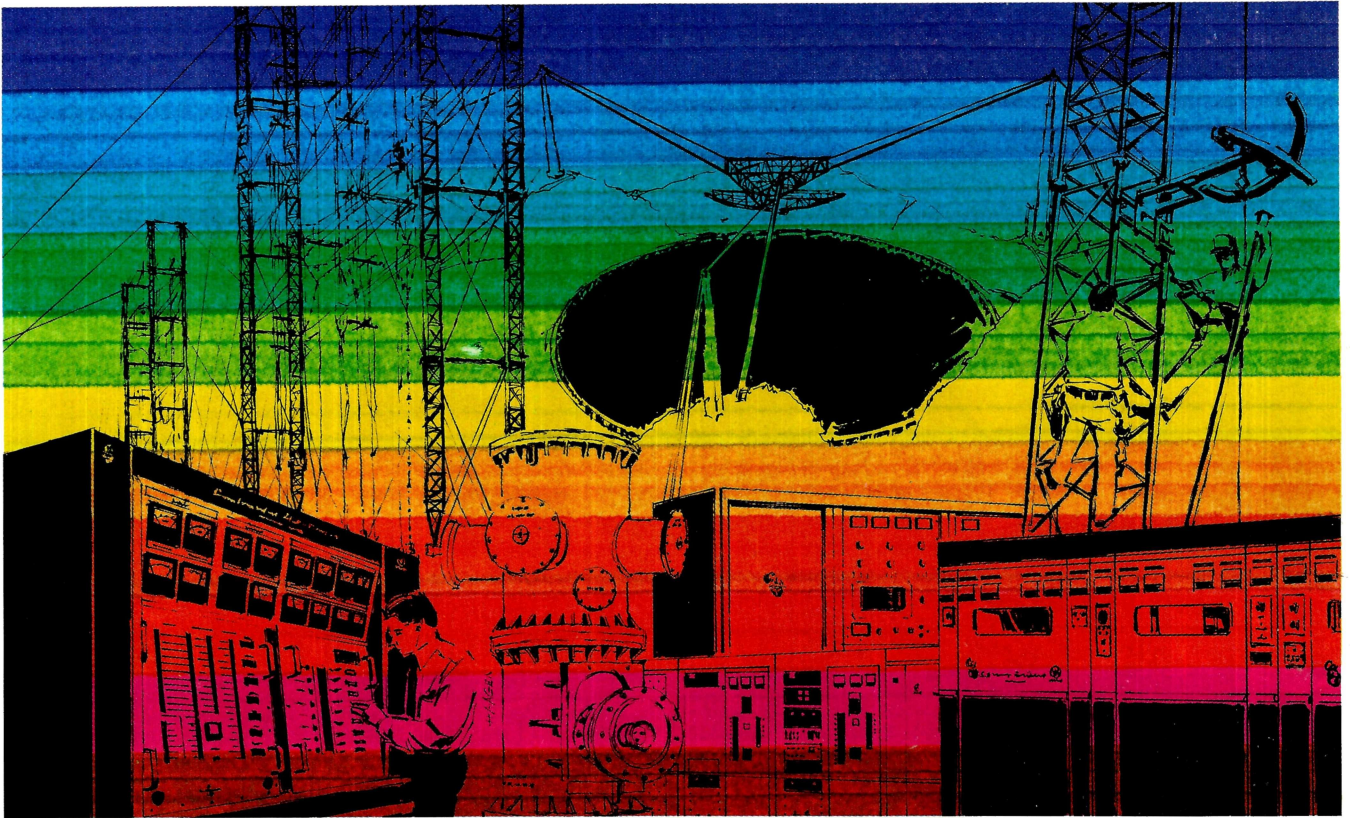
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