Einstein 125 Abhay Ashtekar, Penn State

The German Physical Society celebrated Einstein's 125th birthday in Ulm, his birthplace, through a conference. Since the membership of the Society is very large —according to the organizers, it is the largest Physical Society worldwide— they have to divide their annual meetings into sections. This meeting brought together sections on General relativity Gravitation, History of Physics and Mathematical Physics.

The conference was inaugurated by the German President, Johannes Rau on March 14th, the day Einstein was born. There was a delightful evening lecture entitled "Einstein's Impact on Theoretical Physics of the 21st Century" by Professor C.N. Yang. Although he is now 81 and had flown to Germany from Hong Kong just the day before, there was not the slightest trace of jet-lag or fatigue. He started out by saying that in his view, Einstein was by far the greatest scientist of the 20th century and characterized his work by *Depth*, *Scope, Imagination, Persistence, and Absolute Independence.* Then, in his usual crisp style, he summarized the continuing impact of Einstein's creative contributions, particularly, his "obsessions with unified field theory". Professor Yang sharply disagreed with the view that this work was misguided or futile. Specifically, he explained that three key themes in contemporary physics originate in that work: Geometrization of physics; non-linearity of laws of Nature; and the role of topology in physics.

This lecture was followed by a surprise: a musical event featuring Paul Einstein on violin and Siegfried Räbblen on Piano. Paul, a great grandson of Einstein's is a musician living in the south of France and played on Einstein's violin. The piece was a Mozart Sonata, K304, written in 1778. It is the only instrumental work Mozart wrote in E-minor and its poignancy reflects Mozart's reaction to the news of his mother's death. It was Einstein's favorite.

Three days starting Monday, March 15th were devoted to the scientific part of the conference. The program on General Relativity and Gravitational Physics was organized by Claus Kiefer, the Chair of the Section, in consultation with other office bearers. Plenary talks were given by Abhay Ashtekar (Gravity, Geometry and the Quantum: Building on Einstein's Legacy); Gerhard Huisken (Geometrical Concepts in General Relativity); Hermann Nicolai (Cosmological Billiards); Asher Peres (Quantum information and Relativity Theory) and Cliff Will (Was Einstein Right?). In addition, there were several parallel sessions on gravitational physics which featured invited talks by Martin Bojowald (Quantum Cosmology); Christian Fleishhack (Loop Quantum Gravity: Progress and Pitfalls); and Domenico Giulini (The Thin-Sandwich problem: A Status Report), as well as a number of contributed talks by others. In addition to scientific talks, there was parallel session on "Einstein and the Arts" and a plenary lecture by Arthur Miller, comparing Einstein's and Picasso's views on space and time, in particular, simultaneity.

The city of Ulm had commissioned a special opera, *Einstein, die Spuren des Lichts* (Einstein and the traces of light) from Dirk D'Ase, the Composer in Residence in Vienna for this occasion, with libretto by Joachim Stiller. The conference participants were treated to a special performance on the evening of Tuesday, March 16th. The city has also organized a year-long exhibit to celebrate the 125th birthday. There were several interesting items in the exhibit. The one I found most moving was the desk that Einstein used in the Berne

Patent office —it was just sitting there, unprotected. One could touch it, even open the drawers. Alas, there were no forgotten, left-over papers from 1905!