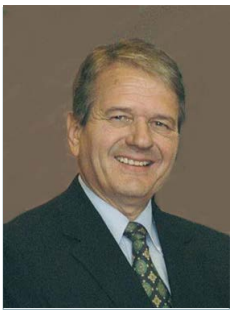
IN RICORDO DI

Horst Wenninger (1938-2020)



Vorrei dedicare al ricordo del mio fraterno amico Host Wenninger la componente scientifica che discutevamo spesso insieme con estremo interesse.

Nel novembre del 1976 si tenne a Washington una conferenza interdisciplinare nella quale presentai le tre fasi di transizione necessarie affinché possa esistere la realtà in cui viviamo. Siccome nessuno era in grado di descrivere in modo matematicamente rigoroso queste tre fasi di transizione, venne fuori di assumerle nella loro realtà introducendo il concetto di "Big Bang" (BB). La figura qui presentata sintetizza l'enorme quantità di nozioni scientifiche necessarie per arrivare al mondo in cui viviamo inclusa la nostra esistenza.

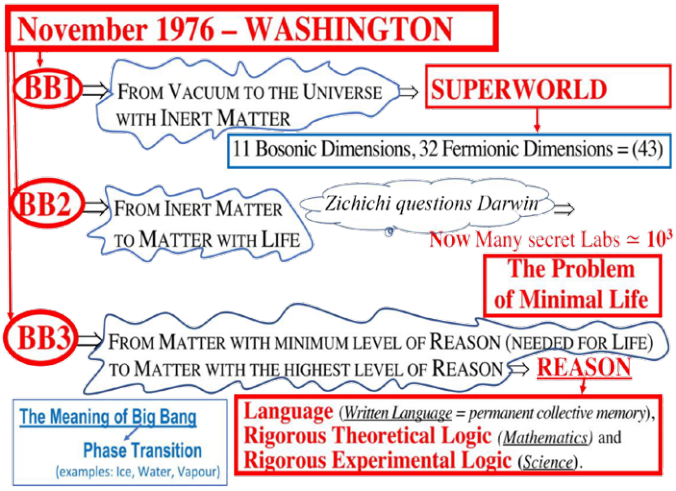
Al mio carissimo amico Horst dedico questa figura. Il suo affetto per me mi procurava una grande gioia che mi mancherà per sempre. Non potrò dimenticare l'enorme sorgente di fraterno affetto che mi dava.

Antonino Zichichi
Università di Bologna

I would like to dedicate to the memory of my brotherly friend Host Wenninger the scientific component that we often discussed together with great interest.

In November 1976 an interdisciplinary conference was held in Washington in which I presented the three stages of transition necessary for the reality in which we live to exist. Since no one was able to describe these three stages of transition in a mathematically rigorous way, it came out to assume them in their reality by introducing the concept of "Big Bang" (BB). The figure presented here summarizes the enormous amount of scientific knowledge necessary to get to the world we live including our existence.

I dedicate this figure to my dear friend Horst. His affection for me brought me great joy that I will miss forever. I will not be able to forget the enormous source of fraternal affection he gave me.



Horst Wenninger obtained his diploma in Physics at Heidelberg in 1962 and his PhD in 1966. The diploma work was the measurement of the ^{87}Rb half-life (published in 1962), using a multi-wire proportional chamber and an anti-coincidence wire-chamber, both operated at high voltage in the Geiger mode. Indeed, all the basic elements of the multi-wire detectors had been known since the 1950s, well in advance of the availability of the solid state electronics that will allow the technical developments leading to the MWPC at CERN in 1967, and Horst was beginning his life-long engagement in the detector physics.

In the late 1960s, the European physicists were seeing the need for an accelerator having an order of magnitude higher energy than that available at the PS (30 GeV). And CERN started the effort to build the SPS. Bubble chambers were in those years a fundamental detector and in 1967 a CERN, Ecole Polytechnique, Heidelberg Collaboration started the effort for the Big European Bubble Chamber (BEBC). Having started to work in this fascinating project, Horst moved to CERN in 1968. He will work at the laboratory for all his life.

After having contributed to the building of BEBC, Horst became its Physics Coordinator in 1974, when SPS started to deliver its high energy beams, and, with BEBC, to give fundamental contributions to neutrino physics. After a short period at DESY (1980-82), Horst was back to CERN, and BEBC as its Group Leader. His wide and deep scientific experience and his managerial ability led him to take on roles of high responsibility, as the Division Leader, first of the Experimental Facilities (EF) Division, from 1984, then of the Accelerator Technologies (AT) Division, from 1990, Research and Technical director from 1994 to 1999. In 2000 he helped to launch the CERN Technology Transfer Division and chaired the Technology Advisory Board.

He vigorously promoted the R&D on superconducting magnets for LHC, and LHC-specific technologies such as vacuum and cryogenics. He was also instrumental in the implementation and success at CERN of the Italian LAA initiative for LHC detector R&D. His role for the approval of the LHC with the support of Germany was crucial. Horst was later awarded the Order of Merit (First Class) of the German Republic.

After having retired from CERN in 2003, Horst was to help in the development of the FAIR facility at the GSI at Darmstadt, a project much larger than any previous ones

at the laboratory. His actions, with his unique experience in leading large international efforts, was instrumental in managing the contributions from different countries.

Horst had a nice character, always kind in answering to questions in physics and technology. Conversations with him – we had them regularly in the evenings at the International School of Subnuclear Physics in Erice – were pleasant and illuminating. We will miss his humanity, his science and his vision.

Alessandro Bettini
Università di Padova

I had the pleasure and privilege to meet Horst Wenninger in the LAA Project context at CERN. The project was initiated by Antonino (Nino) Zichichi in 1986. Its goal was to prove the feasibility of new detector technologies that could be used in a multi-TeV hadron collider that Nino had called Eloisatron (Eurasiatic Long Intersecting Storage Accelerator). The LAA Project was strongly connected to the INFN Eloisatron Project, both led by Zichichi and both concerning a vision on supercolliders and technologies of the future. The LAA project had ten components and I was responsible of the "Supercomputers and Montecarlo simulations" one. Of course, I was the only female responsible and Host Wenninger nicely defined me the *"LAA prima donna"*. This work encounter brought us to Erice, in a number of workshops, meetings and schools at the EMFCSC ("Ettore Majorana" Foundation and Centre for Scientific Culture). And this was where our friendship developed, with him and his delightful wife Gisela. I even remember a nice farewell party in Erice where I had the amusing opportunity to dance with him the rock'n' roll (none of us was an expert!). His friendship with Nino was absolute. A lecture hall of the EMFCSC will be named after him and Nino has written for his friend a few words which are not an obituary but a heartfelt dedication.

Horst was in all circumstances and for all matters an extremely good advisor and trusted counsel, in particular at the time when I was representing Italy in the CERN Council (2003-2004) or when I became president of the European Physical Society (2011-2013). This is when I asked him to revamp the EPS Technology Group (orphan of the newly established EPS Energy Group) that was relaunched thanks to him as the EPS Technology and Innovation Group (TIG), which he wisely oriented towards health physics. His enthusiasm and competence in all his actions were unrivalled. Moreover, one could always trust him.

In Italy, he has been a member of the Scientific Council of the Centro Fermi ("Enrico Fermi" Historic Museum of Physics and Study & Research Centre) in the years 2012-2015, a member of the Bologna Academy of Sciences, a member of the in-kind group of CTA (Cherenkov Telescope Apparatus) at Bologna headquarters. Of course, he was also a devoted member of the Italian Physical Society.

On the CERN web site one can find a beautiful obituary of Horst Wenninger, written by his friends and colleagues. The final sentence reads: *"Horst left his mark on CERN ... We have lost an outstanding colleague and a good friend from whose enthusiasm, advice and wisdom we all benefited tremendously"*. Yes, indeed, Horst was an incredible friend, a friend one could rely upon unreservedly, someone who would have never betrayed you. He left his mark, indeed, not only at CERN and in many other institutions, not only in my professional life but also in my personal sphere. I am very grateful to him and I will deeply miss him. Ciao, Horst!

Luisa Cifarelli
Università di Bologna