

Plenary Talk

PV II Mon 11:00 AudiMax

Why the Invention of the World Wide Web was no Coincidence: Scientific Culture and Technological Innovation at CERN, 1972-1991 — ●BARBARA HOF — Université de Lausanne, Switzerland

How does the development of the Web look when examined through the lens of the history of physics? What factors contributed to this computing invention, which became a public success only in the 1990s, and to what extent can its development be attributed to international collaboration and existing technical infrastructures? My talk explores why CERN's unique blend of international data exchange, a culture of open science, and cutting-edge accelerator research made it the ideal

breeding ground for a universal information system. I argue that, long before the creation of the Web application, CERN had already established a robust infrastructure of networked computers and the corresponding expertise. These conditions, born out of the necessity of exchanging experimental physics data both within CERN and across institutional and national borders, were crucial to the Web's development. Drawing on original archival materials, I will trace the evolution of networking at CERN from the early 1970s to the creation of the Web two decades later. The history of the Web also prompts reflection on the broader role of developing applications in and for physical research, as well as the pursuit of practical solutions. These factors are relevant to physics and its history far beyond the invention of the Web.