Temporary collider shutdown a “blow”

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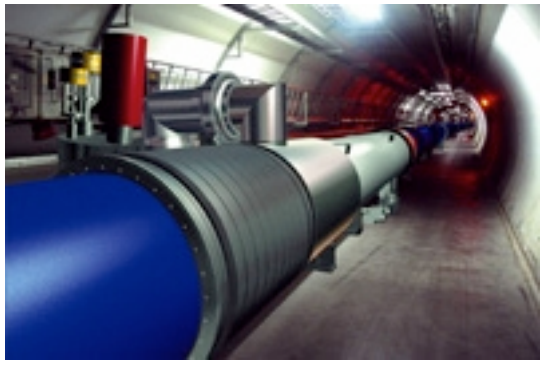
Courtesy CERN and World Science staff



A giant particle collider whose launch this month scientists hailed as historic must shut down until spring, a “psychological blow” to project participants, said the director-general of the research center operating the machine.

The Large Hadron Collider, the biggest particle-smasher on Earth, is supposed to investigate secrets of the universe including what creates mass and what a mysterious “dark matter” pervading the cosmos might be.

The shutdown “is undoubtedly a psychological blow,” said Robert Aymar, Director General of CERN, the European Organization for Nuclear Research near Geneva. “I have no doubt that we will overcome this setback.”

The problem was due to a large helium leak into an area of the collider tunnel, probably caused by a faulty electrical connection between two magnets, CERN officials said.

But before the incident can be full understood, they added, the relevant section of the tunnel must to be brought to room temperature and the magnets opened up for inspection. This will take three to four weeks, officials said.

The time necessary for the investigation and repairs precludes a restart before CERN’s obligatory winter maintenance period, bringing the date for restart of the accelerator complex to early next spring, the officials added.

It’s “a very complex instrument, huge in scale and pushing technological limits in many areas,” said Peter Limon, who was responsible for commissioning the world’s first large-scale superconducting accelerator, the Tevatron at Fermilab in the United States. “Events occur from time to time that temporarily stop operations, for shorter or longer periods, especially during the early phases.”

Image; The Large Hadron Collider, a new particle accelerator in stalled in a circular under-ground tunnel measuring 27 km (17 miles) around. It straddles the Swiss and French borders on the outskirts of Geneva. (Courtesy CERN)