

## PHYSICS

## Philately will get you everywhere

The World Year of Physics 2005 did not fail to make its mark — its postmark, at least. This page displays a collection of the stamps and associated philatelic memorabilia issued by the world's postal services to commemorate the occasion (see also <http://fizjk.fic.uni.lodz.pl/rut/Stamps/wyp/wyp2005.html>).

The event may have been global, but the iconography of the stamps is, in many cases, distinctly national. The Republic of Ireland, for example, takes the opportunity to celebrate the 200th birthday of William Rowan Hamilton, the prodigious mathematician and physicist. Apocryphally, the formula for the multiplication of quaternions (four-dimensional complex numbers used in an early form of vector algebra) depicted on the Irish 48-cent stamp came to Hamilton as he was walking along the Royal Canal in Dublin. He carved it into the stone of the nearby Broome Bridge — an intellectual cut above most graffiti.

Slovakia likewise commemorates one of its own, Dionýz Ilkovič, with a first-day cover that includes his expression for the mean-limiting diffusion current in polarography, an electrochemical analysis technique. India trumps this with a triumvirate: Satyendra Nath Bose, of boson fame; Homi J. Bhabha, the nuclear physicist who lent his name to electron-positron scattering; and Subrahmanyan Chandrasekhar, the astrophysicist who looked into black holes.

Unsurprisingly, however, the iconic status of one physicist transcends national boundaries. The World Year of Physics does, after all, celebrate the hundredth anniversary of Albert Einstein's *annus mirabilis*, during which he published five papers — covering atomic behaviour, the quantization of light, and the nature of space and time — from which classical physics

never recovered. The most famous product of that fertile year, the equation that embodies mass-energy equivalence, is no less iconic than its creator — though not, admittedly, as  $m = E/c^2$ , the form in which it appeared in 1905.

Many countries are eager to stamp their claim on the greatest physicist of the twentieth century: Germany, naturally, where he was born in 1879 and whence he fled in 1933; and Switzerland, scene of his greatest triumphs, which famously emanated from the patent office at Bern. The Czech Republic remembers his association with Prague, where he obtained his first full professorship in 1911, and where he consorted with the writers Max Brod and Franz Kafka in Bertha Fanta's salon on the Altstädter Ring. And Italy chooses for its 85-cent stamp (next to a Feynman diagram and a depiction of the birth of a black hole) a woodcut of the university town of Pavia, near Milan, where Einstein's family settled in his late teens. Cuba even breaks with the Year of Physics theme, commemorating instead the seventy-fifth anniversary of a visit by Einstein to the island.

With his luxuriant moustache and untidy hair, and expression ranging from the lugubrious to the avuncular, Einstein — preferentially depicted as an old man here — is instantly recognizable. This remains so even when pictured with half his head missing (Poland), or when the depiction is schematic in the extreme (Cuba, Israel). Which raises the question, is there a minimal Einstein? What are the bare essentials required to make an image that remains unmistakably him? Readers might care to send in their own drawings, with contact details, by fax to +44 (0) 20 78 43 4596 or as a pdf attachment to [minimaleinstein@nature.com](mailto:minimaleinstein@nature.com)

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