

A very special MG16 poster, celebrating the 50th anniversary of the article “Introducing the Black Hole” and the black hole mass energy formula.

Since 1985, the MG meetings have been organized by ICRA in many locations around the globe. This MG16 meeting represents a very special scientific occasion: the understanding finally reached for observational evidence of the black hole mass energy formula, as well as the fiftieth anniversary of the Physics Today article “Introducing the Black Hole”.

In view of these considerations, we have decided to celebrate this meeting with an image of a small part of the numerous signatures on the walls of ICRA Room 301 at the Physics Department of the University “La Sapienza” in Rome (Italy). Indeed, over the past 40 years, many scientists from all over the world have stopped there for discussions with students and faculty members, and have left their original scientific manuscripts behind which remain collected in the extensive file cabinets of ICRA room 133.

Most notable of the sketches (drawn in 1989) is John Wheeler’s famous eye representing the universe observing itself, allowing it to be conscious of its own existence. Riccardo Giacconi, visiting ICRA in 1992 as head of its scientific committee, wanted to show he was smarter than Wheeler, and so added onto this sketch his X-ray focusing mirror developed for the Einstein Telescope Mission that could help the human eye see much better and farther in the universe. 10 years later he received the Nobel Prize.

In the lower left corner Gerard t’Hooft recorded his 1999 leisurely weekend visit to ICRA just months before receiving his Nobel Prize. Next to this is a surprising revelation by Oreste Piccioni in 1989 who corrected his claim “This shack (built onto the roof of the physics building) was mine”, to “is mine”, having performed his classic mu meson discovery experiment here, which is often considered the starting point of modern particle physics.

Michael Kramer visited in 2007 just after the discovery of the binary pulsar whose continuous analysis has led to unprecedented tests of GR, the latest news of which will be presented at the opening of MG16. Minoru Oda was the head of the Japanese Space Agency who while at MIT built the interferometer essential for the discovery of Cignus X1 (the first black hole candidate). Long time ICRA member Francis Everitt left his signature as head of the GP-B mission which used quantum flux in superconductivity to measure the precession of a spinning gyroscope in orbit around the Earth, and who will receive the MG Award this meeting.

Chandrasekhar who won the Nobel Prize in 1983 had visited ICRA many times, finally leaving his hand-written mark in 1991. Roy Kerr, an ICRANet faculty member, left his signature the week after being nominated as a fellow of the Royal Society and having just received the prestigious Crafoord Prize. David Arnett and Chris Fryer collaborated on hypercritical accretion of supernova onto a black hole---Arnett is one of the founders of the theory of thermonuclear evolution of supernovae, and has been in constant contact with us.

Claudio Teitelboim (Bunster) injected his sense of humor with his comment in 1999, while Fang Li Zhi and Li Shuxian lightheartedly commented “The universe is so small, ICRA is everywhere”. Leopold Halpern was the first person to encourage the young Remo Ruffini to choose a career studying general relativity, later assisting P.A.M. Dirac in his retirement years in the US, during which Dirac himself participated in MG2. Rich Boyle reminded us of the long collaboration of the Vatican Observatory with ICRA, which led to papal audiences for several meetings including a private audience for Zel’dovich. Zel’dovich and Ginzburg, respectively the fathers of the Soviet Union atomic and hydrogen bombs, visited ICRA during a local Sapienza Halley comet celebration. We are proposing to transform ICRA into a Category 2 Center of UNESCO, in order to recognize ICRA and its documents in the “World Heritage” program under the auspices of UNESCO.