



*Sunset over the Fermi sea from the Land of the Rising Sun  
Guy Le Lay and Masashi Nakatake*



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**“The ballad of Majorana” ;  
from bcc iron, to fullerenes, CNTs’ black holes,  
DNA-like Si strands, and the Kelvin conjecture**

**2020/1/14(Tue)13:30-15:00  
KS Lecture Hall**

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The Atomium, built for Expo 58 in Brussels, was designed from the bcc unit cell of iron, while the geodesic dome built by architect Buckminster Fuller for Expo 67 in Montreal, inspired the structure of the C60 fullerene. Since a few weeks, Le Louvre celebrates the 500th anniversary of the death, in France, of Leonardo Da Vinci, with, especially, l' Uomo Vitruviano, as well as Pierre Soulages, the Master of “Outrenoir\*”, for his 100th anniversary, while Anish Kapoor, recently created the Black Holes of Art with his patented blacker than black, a Black Forest of carbon nanotubes, which makes the world’s darkest paint. Last autumn, the IKB (International Klein Blue), “The Colour Out of Space” (Howard Phillips Lovecraft, 1927) was exhibited at the Soulages Museum in Rodez, in counterpoint to the Outrenoir. Yves Klein’s 1958 exhibition at the Clert Gallery manifested his conception of art as “pictorial sensitivity”, the artist advocating the dematerialization of art.

Presently, great scientific events are associated with art performances, like New Horizons\*\* by Brian May, the famous guitarist of Queen, and astrophysicist, created for the approach of Ultima Thule (renamed Arrokoth, a Native American term meaning “sky” in the Powhatan/Algonquian language), the Kuiper belt asteroid, by NASA’s probe.

More modestly, we have commemorated in Marseille, last July, the 50th anniversary of the first step of Neil Armstrong on The Moon, with the “From Tōmaï to Starman” event closing the “From The NanoWorld to StarDust” conference and the premonitory invitation of Michel Mayor, the 2019 Nobel Prize laureate in Physics for his discovery of the first exoplanet, 51 Pegasi b, at the Observatoire de

Haute Provence, which I can see from my 天守閣 windows at home.

At this conference, silicon nanoribbons, coined strands in analogy with the DNA double helix<sup>1</sup>, were presented, as well as the foam-like template of plumbene, graphene’s heaviest brother, a “Nano Water Cube”<sup>2</sup>, remembering the facade of the Beijing National Aquatics Center built for the 2008 Olympics, which was designed on the Weaire-Phelan solution to the Kelvin conjecture.

In my talk, I will stroll through such architectures, museums, and events from Montreal to Nagoya and Kanazawa, and evoke my Holy Grail quest for the elusive Janus-type Majorana’s particle, reflected in his mysterious double disappearance.

# Science and Art Seminar

