



Contribution ID: 42

Type: **not specified**

## Augusto Righi and “the intuition of the experiment”: looking at the physicist’s work through his original instruments

*Thursday 10 September 2020 10:00 (35 minutes)*

According to Righi’s university colleague and friend Giacomo Ciamician who spoke at the com-memoration held at the Senate few days after Righi’s death (8th of June 1920), “the intuition of the experiment” was Righi’s most characterizing feature. Ciamician underlined Righi’s long-life com-mitment to repeat the major experiments of the late 19th and early 20th Century by pointing out, at the same time, his inextinguishable tension to carry out a personal adaptation of them.

In fact, Righi’s major works such as “L’ottica delle oscillazioni elettriche” published in 1897 or “La materia radiante e i raggi magnetici” published in 1909 are largely based on experiments performed with devices designed and built by Righi himself (some of them existing as unique exemplars).

A recent restoration of Righi’s principal instruments conserved at the Department of Physics and Astronomy in Bologna (and carried out in view of a permanent exhibition opening in October 2020) allowed to root Ciamician’s words into the historical objects.

The presentation will provide an insight into Righi’s experimental intuition by focussing in particular on devices and experiments for the study of electromagnetic waves and matter physics.

### References

1. G. Dragoni, Augusto Righi: Fisico e Matematico. Una rilettura biografica, *Quaderni di storia della fisica* 19, 2017, pp. 47-71.
2. B. Carazza; H. Kragh, Augusto Righi’s Magnetic Rays: A Failed Research Program in Early 20th-Century Physics, *Historical Studies in the Physical and Biological Sciences* 21 (1): 1–28 (1990).
3. A. Righi, L’ottica delle oscillazioni elettriche. Studio sperimentale sulla produzione di fenomeni analoghi ai principali fenomeni ottici per mezzo delle onde elettromagnetiche (Bologna, Zanichelli, 1897)
4. A. Righi, La materia radiante e i raggi magnetici (Bologna, Zanichelli, 1909)

**Author:** Prof. BERTOZZI, Eugenio (Department of Physics and Astronomy. University of Bologna.)

**Presenter:** Prof. BERTOZZI, Eugenio (Department of Physics and Astronomy. University of Bologna.)

**Session Classification:** Augusto Righi (1850-1920)

**Track Classification:** sisfa 2020