



Contribution ID: 10

Type: **not specified**

## Augusto Righi and the theory of capacitors

*Thursday, September 10, 2020 10:35 AM (25 minutes)*

In 1872, Augusto Righi was appointed assistant to Emilio Villari in Bologna; the following year he became a professor of physics at the Technical Institute, replacing his teacher, Antonio Pacinotti. In these early years, Righi was mainly concerned with the theory of capacitors and electrostatic research. His first work described a new induction electrometer, which served to measure weak charges. In a decade Righi carried out numerous experimental investigations to demonstrate that insulating materials under the influence of a charge did not polarize, i.e. there was no charge shifting within the materials. The charge detected on the opposite side of the insulators, electrified by induction, resulted from penetration by conductors in contact or by electrical particles from the atmosphere. On this hypothesis Righi collided with Giovanni Cantoni. In his essay of 1875 he examined the induction machines made in the second half of the Nineteenth Century, starting with those of Toepler and Holtz, and proposed a classification. In dealing with the technical aspects, Righi was looking for an alternative theory to the classical one of the action at a distance between the charges.

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

**Track Classification:** sisfa 2020