





# The cgs systems of units



James Clerk Maxwell



William Thomson

Quantity	electrostatic cgs	electromagnetic cgs
Current	statampere	10 <sup>-9</sup> A
Voltage	statvolt	10 <sup>8</sup> V
Resistance	statohm	10 <sup>-9</sup> Ω
Capacitance	cm	10 <sup>-12</sup> F
Inductance	—	10 <sup>-9</sup> H

Very different and unconnected unit sizes

Leo Caflagni (INdAG)

May 2024

## The cgs systems of units



Quantity	electrostatic cgs	electromagnetic cgs
Current	statampere	10 <sup>-9</sup> A
Voltage	statvolt	10 <sup>8</sup> V
Resistance	statohm	10 <sup>-9</sup> Ω
Capacitance	cm	10 <sup>-12</sup> F
Inductance	—	10 <sup>-9</sup> H

Very different and unconnected unit sizes

Leo Caflagni (INdAG)

May 2024











## IEEE MILESTONE

Giovanni Giorgi's Contribution to the Rationalized System of Units, 1901-1902

Giovanni Giorgi proposed rationalizing the equations of electromagnetism. His proposal added an electrical unit to the three mechanical units of measurement (meter, kilogram, second). While he was a professor at the University of Rome, the International Electrotechnical Commission adopted a version of Giorgi's system. His ideas formed the basis of the universally adopted International System (SI) of units, currently used in all fields of science and engineering.

December 2021











