

Systems of linear equations

IE. Kirchhoff's laws express every loop of a circuit as a system of linear equation.

In MRI machines, they assume that energy is deflected proportionally to the density. For every raw there is attenuation proportional to the attenuation coefficients. To recover the estimated density, they solve a linear system.

A solution set is the set of all solutions of a linear system.

Set notation:

$$\left\{ \begin{pmatrix} s_1 \\ -1 + 2s_1 \end{pmatrix} : s_1 \in \mathbb{R} \right\}$$

: means such that

\in means in the set

#notation

see next: [Spanning Sets and Linear Independence](#)