



James Clerk Maxwell

1831-1879

James Clerk Maxwell, a Scottish mathematical physicist, contributed to imaging science through his understanding of electromagnetic radiation, color, and optics.

Maxwell's Equations state the fundamentals of electric and magnetic fields and their interactions with matter. Einstein described Maxwell's work as the "most profound and the most fruitful that physics has experienced since the time of Newton."

Maxwell's interest in the subject of color resulted in the invention of a rotating disk and a color box to help determine how additive color mixing worked. Maxwell's color box was used to determine the first set of color matching functions.

In 1855, Maxwell demonstrated a system for making three photographic exposures of a scene through red, green and violet filters and then reproducing the scene by projecting the three separations in registration through their respective filters. As a result, Maxwell became known as the father of color photography.