

Ludvig Lorenz's Half-Baked Theory of Light (A Confederate Colonel's Warning after the Civil War)

Frederick David Tombe
Belfast, Northern Ireland,
United Kingdom,
sirius184@hotmail.com
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Abstract. At a clandestine reunion of Confederate veterans in a remote Arkansas farmhouse in 1868, Colonel Sherburn—best known from *The Adventures of Huckleberry Finn* for his confrontation with a lynch mob, and who had, four years earlier on the eve of the Battle of Atlanta, delivered a speech to his men on the dawning age of technological transformation—now turns his attention to the dangers posed when a fundamentally crude theory, introduced by an uninformed mind, distorts the foundational understanding of electromagnetic induction and the nature of light.

Men—brothers in arms—before we marched toward Atlanta, I told you of a strange Scotchman whose name will be spoken centuries hence: James Clerk Maxwell, [1]. I'll not waste my powder railing at him tonight, for he is not the danger. The danger comes from a Copenhagen man by the name of Ludvig Lorenz, [2]. Yet before we can see Lorenz clear, we must look again at Maxwell—a man of spinning vortices, whose equations swirl like musket smoke through the air. He claimed to grasp the secret gears of nature, to lay bare the invisible fields that pulse between the stars.

And yet I warned you then, on the eve of that Battle of Atlanta, [3], and I warn you again tonight: Maxwell, for all his brilliance, failed to see the deeper truth. He saw the ether—the electric fluid—spinning in perfect vortices. He saw the particles circling their edge, neat as clockwork gears—idle wheels, he called them. But I tell you, they are no idle wheels: they are portals in the ether, gateways to what lies beyond. Through them, God's own engineers govern the flow into and out of this world. They rule the very animation of the universe—the breath drawn into lungs, the tremor of a sparrow's wing, the boundary between motion and stillness, between life and its absence. And if we mistake them for hard balls, we open the field for men like Lorenz to march in and seize the very order of creation as their prize.

That Copenhagen boy with his parlor-room physics. Some of you may have heard of him; most of you haven't. That won't last. His

name's going to echo, not because he's right, but because of the damage he's about to do.

Lorenz tells us there's no need for an ether. No ether, he says! And why? Because he simply supposes that empty space is somehow stuffed with matter enough to carry his precious light-waves—those little periodically rotating electric currents he imagines passed along by induction. He might even have sensed the right swing on that last point—but mark you, it's as if he were sneaking Maxwell's vortex sea through the back door—keeping the particles, those very sources and sinks that *demand* the ether—while pitching the ether itself overboard! Like a man who saves the wheels of a carriage but shoots the horse, then brags he's improved the ride. He's ripped out the very river that binds the banks, the flow that ties the whole system together. What remains isn't theory, but the hollow rattle of one—a piece of tomfoolery dressed up as physics.

And if that weren't enough, he drags the old electrostatic force into the wave equation—though even he admits it's Faraday's induction that drives the motion. That rigid old electrostatic force, now shackled to a river of dancing induction! And worse yet, he trots out retarded potentials*—retarded!—as though you could run a relay with fields limping along behind the very balls that are meant to source them. It's nonsense piled on contradiction, like a race where the baton's handed over only after the runner has already gone past.

Mark this: Maxwell nearly had the truth. But Lorenz? Lorenz belongs to another breed—gentler, more wilting—perhaps a cousin in spirit, if not in name, to Hans Christian Andersen. And if you think I speak unfairly, let me remind you of the time Andersen came knocking at the door of Jacob Grimm—one half of the legendary Brothers Grimm—in Berlin—and was given short shrift.

He cried. Sat himself down on the steps and sobbed like a child denied his bedtime story. Not a drop of manhood in it. That is the temperament of these folk—long on dreams, short on backbone.

And so it is with Lorenz. Faced with something like the grand, roaring machinery of Maxwell's vortices—Lorenz would blink. He'd turn his face from the storm, and whisper, *'No, that's too wild, too deep, too wet.'*

He wouldn't want to get his boots muddy in the ether. He wouldn't want to be seen splashing about in a vortex sea. He's more at home in a world with no ether. No displacement current, mind you, apart from these rotatory vibrations he conjures—little wheels turning in empty space, pretending to carry the burden of real physics! A child's picture of light. Fairy-tale physics.

But listen here—there's another breed of men I aim to call out tonight. Look at these frauds, piling praise on Lorenz as if he'd handed them the sun, when all he's done is cough up a hollow little theory that fits neatly in their lazy heads. Maxwell's truth—deep, tangled, real—was too much for their pampered, soft minds to chew. Too demanding. Too dangerous. They've surrendered—and surrendered gladly.

And what happens, I ask you, when a whole civilization starts building its understanding of the world on empty theories—on the shallow schemes of the mediocrats? When men who've never turned a wrench on reality start deciding what's true, not because they understand it, but because they can *manage* it—package it, publish it, preach it?

I'll tell you what happens. The foundations rot. The language of nature gets rewritten by men who can't even read it. Real thinkers get drowned out by conference men and journal men and soft-handed experts who'd rather be certain than right. And soon, you've got a world that looks smart, sounds smart—but couldn't tell a wave from a whisper.

You lose the real. That's what happens. You trade truth for consensus. You trade light for noise. And in the end, the whole damn thing comes crashing down—built on sand, signed in ink, sealed with applause from men who never understood what they were clapping for.

And before you know it, they'll strip Lorenz's theory down even further—won't even be a damn electric ball left in space to be spun around. Just dead void and big talk. And as for Maxwell's displacement current? That'll get hauled off too—turned into some ghost idea, some virtual, high-sounding *abstract*, like it's too delicate to touch. They'll talk it half to death in papers and diagrams, but nobody'll know what the hell it means anymore. It'll be theory without teeth. A hollow shell in a scholar's coat.”

When he'd finished, Shadrack Sherburn leaned back in the worn wooden chair, arms crossed, eyes sweeping the room like a colonel over his troops. The low beams and the rough-hewn table held the silence tight, and every man felt the weight of his words settle over them, as if the farmhouse itself were listening. He gave a faint, dry smile—half amusement, half warning—and let the quiet linger, daring any man to speak against him.

** Ironically, Ludvig Lorenz later had a gauge named after him, not because of his own work, but because Henri Poincaré incorporated the retarded potentials into the Lorentz¹ Transformation of Fields. This formalism shows how the electrostatic field surrounding a charged sphere transforms into a magnetic field when the sphere moves at speeds approaching that of light relative to the electromagnetic medium. Despite the name, this result is unrelated to Lorenz's original contributions.*

¹After Dutch physicist Hendrik Lorentz, not after Danish physicist Ludvig Lorenz.

This speech was written with the assistance of artificial intelligence, specifically ChatGPT. The request was to present the message in the words of Mark Twain's fictional character, Colonel Sherburn, who appears in, *"The Adventures of Huckleberry Finn"*.

References

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