Editorial

Jack D. Gaskill, Editor

Is Nothing Sacred?

As we go through life we learn to overcome adversity, to bounce back from disappointment, to roll with the punches, to replace long-held beliefs with new ideas, etc., etc. But every now and then we come face-to-face with a hurdle that seems insurmountable; this just happened to me, and I am so disillusioned that I may never recover.

I'm certain you encountered some dismay when you learned that your parents—perhaps with no malice at all—had lied to you about religion and sex. Next, if you reacted as I did, you were extremely distraught when you discovered that light really doesn't propagate in straight lines—as you had been taught many years earlier. But now, we are being asked to trash the decades-old notion that a population inversion is required for laser action to occur. Heresy! Blasphemy! How can they do this to us? Is there nothing left to believe in?

Let me try to tell you what I think I heard. At the 19th Winter Colloquium on Quantum Electronics held at Snowbird, Utah, in January 1989, Steve Harris of Stanford presented a paper on this subject. It appears to have something to do with the pumping of electrons up into a continuum of states, from which these electrons can decay without ever having gained the upper hand. (Actually, his presentation seemed to contain more religion and sex than physics, because he kept talking about such things as elevation to higher states, quantum foreplay, upper-level birth control, etc.) As you can tell, I don't have a full understanding of this new theory but, after spending over a quarter of a century trying to understand the old one, what do you expect? Besides, it sounds almost as wild as some of the theories the economists promote.

I'm not sure where this idea will lead but, no matter what, I probably will be able to pull myself together and face the world again some day. If nothing else, I can always fall back on the irrefutable truth that light always propagates from left to right.

Future Special Issue Call for Papers

January 1990

Laser Radar

Dr. Richard J. Becherer
Science Applications International Corp.
1040 Waltham Street
Lexington, MA 02173-8027
617/863-5173

The January 1990 special issue of Optical Engineering will be devoted to the subject of laser radar. Topics to be covered include the full range of systems applications, component technology, advanced system design, laser radar signal processing architectures and algorithms, phenomenology, and measurements. Within this range of topics the intent is to provide a broad overview of current state-of-the-art technology as well as technology trends that will determine the capabilities of future systems. Application areas to be addressed include research, defense, industrial, and environmental, among others. Authors are encouraged to submit manuscripts for consideration on any of the above or related topics to the Guest Editor by July 15, 1989.