Biographical Note

I am an amateur physicist.

I started out as a metallurgist. There are many types of metallurgists, just as there are many types of physicists. My first metallurgical specialty was metallurgical thermodynamics, which I taught at MIT after receiving my doctorate there. Statistical mechanics and quantum mechanics were not part of my vocabulary.

Perhaps a better take is that I am curious and want to find out how things work. And when motivated I can teach myself what I need to know, even if they are considered difficult.

When I retired, that was over 15 years ago, I decided to look into statistical and quantum mechanics. I ended up focusing on the master equation, how thermodynamic systems on the microscopic level evolve on their way to equilibrium. Perhaps my interest came from the work I had done for my Doctor's thesis, using Hamilton's principle to describe how thermodynamic systems on the macroscopic level evolve on their way to equilibrium.

Being retired I have flexibility in how I present my work. I do not need to worry about how it will affect my income. I found no fun in going through the process of submitting a paper and dealing with referee comments. Without academic affiliation, I have no access to the literature. Nor do I have grant money that may cover the cost of publishing. At little cost, I put my findings on my own web site for anyone to see. No subscription is required to view or download my work.

If you look me up on the internet you will find I am the author or coauthor of papers and hold or co-hold patents in subjects as diverse new metallurgical alloys, metallurgical processes, powder metallurgy and a modification of linear programing. In more recent years, before I retired, I became a manager and executive. I ran a business unit at a major Canadian company, directed the development and commercialization of a novel metal powder, managed a hydrometallurgical plant, and negotiated several industrial gas contracts. In my last job I ran a consulting engineering company.

I now take photographs, travel, and take on a problem in physics.