

# Faith & Physics

Dick Slusher weaves his way through a small barn that once held goats but has since been overtaken by long beams of lumber and power tools. At first glance the scene is chaos—wood is strewn everywhere and scraps litter the floor. But the meticulously planned blueprint laying on a workbench tells a different story. He picks it up and points to columns of neatly printed numbers and diagrams. At the center of the room sits his vision; a large glossy boat gleaming in the late afternoon sunlight. Evidence that patience, passion, and perseverance pay off.

Dr. Richard E. Slusher builds sailboats from scratch and sings bass in his church's choir. He can tell you about the composition of the universe and humor you with string theory. He has lost his son to brain cancer and has endured over 48 rounds of chemotherapy. And after the 77 years that have been filled to the brim with joys and tragedies, he is still in awe of the incredible mystery that is life on earth. Why is the universe as it is? Why is there something instead of nothing?

“It’s a beautiful story we’re faced with,” says Slusher. A story, he says, that is authored by God, intricately woven with science and faith, and encompassing the whole universe.

It’s a story that Dick strives to live to the fullest.

Slusher got into boat building when he stumbled on a sea kayaking festival in Maine a number of years ago. After many nights spent reading up on the subject, he has built three

large boats, four sea kayaks and a few other small vessels. Retired from working in the lab and an experimentalist at heart, boat-building serves as a creative outlet for the inventive man.

A Catholic, Missouri-born physicist, Dick has spent most of his life trying to explain the unknown and learn about the planet we inhabit. He was the first to observe squeezed light, and he has helped make discoveries in optical and quantum physics during his time working at Bell Laboratories and the Georgia Tech Research institute. Yet despite his vast arsenal of knowledge and accomplishments, he is a humble, mild-mannered man.

“I have a very finite ability to understand things,” Slusher says, relaxing into a worn armchair. His tall stature and riveting, bespectacled gaze suggest many years’ worth of knowledge and experience. Yet he speaks without inhibition, openly acknowledging his flaws and the limits of his human mind.

“In physics we are discovering huge new insights into things all the time and I’m sure that will continue,” he says. “So to think that we know enough now to exclude something like God, or why things exist, is stupid in my book.”

For Slusher, physics and faith go hand-in-hand. He likes to compare God to a mathematical concept. Although it is not an object and it does not exist in space or time, it is something we can find.

“It’s real, and it’s more true than a lot of things we think about.” And so is the creator of the universe, he says.

Dick spent his childhood in a small Missouri town near Kansas City that was divided by a railroad—Irish Catholics on one side and White Protestants on the other. His parents were

Protestant and most of his friends were Catholic, but Dick was more concerned with tinker toys and model airplanes.

It wasn't until 1960, when Slusher came home from graduate school for Christmas break, that his own faith journey began. Introduced to his current wife of 54 years, the two began to date over the winter.

"Shirley was the most beautiful girl in the world and still is," Dick laughs, looking at his wife who sits beside him in the living room of their home.

At the time they met, Shirley was a nurse in Kansas City and a devout Catholic. The couple spent the next few months as long distance pen pals until Dick eventually proposed on the fourth of July under a sky full of fireworks.

"Dick was always sweet," says Shirley, smiling.

The two moved here to Mountainville, New Jersey, 50 years ago. They raised their children in the same house.

But before they were married, Shirley had one stipulation—that Dick convert to Catholicism. A year into his pursuit of a PhD in physics at the University of California Berkley, Dick began to study the religion in his free time. Although his Protestant parents weren't pleased with Dick's conversion he has never once regretted his decision.

For Slusher, the Body of Christ is the focal point of his Catholic faith.

"It's a unity of people coming together and hopefully loving each other more, understanding more instead of fighting."

He pauses.

“We think we are confined to this meatball in our head, but the reality is that we are tied to all of our experiences and loved ones and all the things we experience in the physical world.”

He says this notion of unity through Christ is what he cherishes so much about his faith.

“That’s my concept of what God really is,” he says. “It’s a cohesiveness between all people and all things, living or dead.”

This is a powerful truth for a man who lost his son to a ravaging bout of brain cancer just five years ago. Jon Slusher, a newspaper editor and photographer, was 45 when he died after two months of complete incapacitation caused by tumors in his brain. Dick talks about how difficult it was to watch his son die, but he speaks with the kind of wisdom that can only come from experiencing such a tragic loss.

“It makes you aware that every day is a precious gift,” he says. “In some sense, you learn something from it.”

Dick says the body of Christ is even more real to him now because it connects him with his deceased son.

“For me, the faith experience trumps the horrible experience that he had to go through and the fact that we lost him.”

Cancer is familiar territory for Dr. Slusher, who has been diagnosed with lung, thyroid, and prostate cancer throughout his life. On multiple occasions, doctors have told him that he only has 6 months to live. Today his cancer is under control and he doesn’t spend his time worrying about illness. It’s not good to dwell on it, he says. Now, Dick spends his time doing what he loves; singing in the church choir with Shirley, working on physics projects, and building boats.

For a man who has devoted his life to faith and physics, Dick Slusher has spent a lot of time thinking about the universe, God, and our human condition. He has accepted that while it is great fun to speculate about the mysteries of life, our human minds are far too limited to even come close to knowing everything. Slusher says it is important to continually try to learn and understand, and not get discouraged when nothing makes sense. And when nothing does make sense, turn to the things that are most meaningful. Like family, he says.

As Dick and Shirley give me a tour of their home, I get to see their cherished family smiling from picture frames on the walls. In between the photographs are paintings and drawings Shirley has created through the years. She points out an oil on canvas that features a sliver of sunlight illuminating a darkened barn. A small slice of life can be seen through the opened barn door. Dick looks at the painting and smiles. He likes this one.

“It’s sort of like being in your head,” he says. “The light is coming in, but only a little bit. And the expanse outside is only partially visible because of your limited constraints.”

He laughs.

“It’s a great metaphor.”