

February 7, 2021

Dear Mrs. Kearn

You have made a big difference in my life. As you may have heard from Dr. Maor, I am a devoted fan of his many books. I also know that you were his editor for 18 years. You changed my life and the lives of all his devoted readers.

Some years ago I wanted to contact him to tell him how much I enjoyed his books. I had never done that before. After a number of tangential tries, I came across your name as his editor. I sent a note to you and somehow you took the time and forwarded it to Eli. As a result he and Dalia came to visit me 3 times in a small village in Canada. We now have a wonderful and rich friendship. He has given a talk in our community and become friends with some of the residents.

Eli has urged me to write down what I have discovered over time. It is difficult to refuse those two world travelers. I have made a first step to start documenting some of the things that I have learned. I have a little book detailing some things that Eli suggested that related to his book Music by the Numbers. I don't plan on a major publication. I will put what I write somewhere easy to reach and make a few copies for those interested. The Internet can help too.

My small book is called 'Chance Meetings from Bach to Bernoulli'. It is almost ready for a first printing. Eli has written the Preface. and I introduced you in the Forward (not by name)

I have taken the liberty of sending you a small gift for your part in Chance Meetings. I see you like puzzles from an interview you gave. So I enclose a single item on a chain. It is  $\pi$ .

We are in good company with  $\pi$ . Eli may have sent you a bookmark using Euler's famous equation that has been voted the most beautiful formula in Mathematics. It of course features  $\pi$

I've worked on a 'puzzlement' for many years. One of its strange properties is that my function takes the square root of the Zeta Function for all values of the exponent including those in the complex plane. For example. some other examples are Euler's Totient Function and the Moebius Function which inverts the Zeta.

In 1734-5 Euler showed that the Zeta Function with the exponent 2 sums to  $\pi^2/6$ . This was a major find and made him famous even if he had never done any further work.

As you know he went on to produce some 80 volumes of work and the Zeta Function is now legendary for the puzzles it provokes.

My function acting on Zeta(2) gives a result of  $\pi/\sqrt{6}$  It takes the square root of the infinite series for all exponents.

So, I send you thanks from  $\pi$  and those who love puzzles

Mike Sterling

