

Dr. Stephon H. Alexander

Professor of Physics

By

Sarah R.

Stephon Alexander is a theoretical physicist specializing in cosmology, particle physics and quantum gravity. He explores connections between music, physics and mathematics through producing recordings, performing, teaching and lectures. His contribution of his book *The Jazz of Physics: The Secret Link Between Music and the Structure of the Universe* shows how the improvisational nature of jazz is connected with modern physics. He has received many awards and is a pioneer, promoting excellence among under-represented minorities in physics.

His pathway to becoming an award-winning physicist using the intersections of music and science confirms the purpose of my activities that are intended to improve focus, creativity and practice problem solving skills. I perform the harp, piano and play competitive chess. I am involved in jazz performance in which I am being trained to improvise and executing infinite possibilities of musical arrangements. I play chess in which I must also think freely about infinite possibilities to checkmate my opponent. I am an advanced student in Kumon approaching Calculus. Math is the unifying method that both scientists and musicians use to calculate bars of music or scientific equations. My training in music has taught me how to break a complex situation into smaller pieces to perform it. It's a fun challenge to take something that I know is very complicated and make it simpler by breaking it down into its key component parts which is important to solving complex calculations.

Dr. Stephon Alexander inspires me to continue to use my music training and chess education to strengthen my creativity and problem-solving skills that are critical in Physics. Students who study physics are prepared to create new concepts for companies in science, technology, education, the government or private industry.

Submitted by Sarah R

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“ Always Aspiring, Always Inspiring”

Please watch my music videos to enjoy my creative Jazz music at

<https://youtu.be/ojmCyADPbY0>