

## 2023-K725

Assembly Resolution No. 725

BY: M. of A. Flood

HONORING Alexander Zamolodchikov upon the occasion  
of his designation as recipient of the 2024  
Breakthrough Prize in Fundamental Physics

WHEREAS, It is with profound intent that this Legislative Body pays  
just tribute to a man of indomitable dedication whose purposeful life  
and accomplishments will forever stand as a paradigm and inspiration for  
others; and

WHEREAS, It is the custom of this Legislative Body to give acclaim  
to individuals of great character whose lives exemplify the highest  
ideals of humanity; and

WHEREAS, Attendant to such concern and in full accord with its  
long-standing traditions, this Legislative Body is justly proud to honor  
Alexander Zamolodchikov upon the occasion of his designation as  
recipient of the 2024 Breakthrough Prize in Fundamental Physics, to be  
celebrated at the 10th Annual Breakthrough Prize ceremony on April 13,  
2024, in Los Angeles, California; and

WHEREAS, The Breakthrough Prize honors an esteemed group of the  
world's most brilliant minds for impactful scientific discoveries,  
including a subset responsible for substantial progress in the  
understanding and treatment of major diseases; and

WHEREAS, The Prize, popularly known as the "Oscars of Science," was created to celebrate the wonders of our scientific age by founding sponsors Sergey Brin, Priscilla Chan and Mark Zuckerberg, Julia and Yuri Milner, and Anne Wojcicki; and

WHEREAS, Stony Brook University Distinguished Professor and C.N. Yang-Wei Deng Endowed Chair Alexander Zamolodchikov was cited for this most esteemed honor for his profound contributions to statistical physics and quantum field theory, with diverse and far-reaching applications in different branches of physics and mathematics; and

WHEREAS, A visionary physicist who has advanced fundamental research in physics throughout his incredible career, Alexander Zamolodchikov truly dedicated his lifetime to quantum field theories; these field theories describe not only particle physics, but emergent phenomena from magnetism and superconducting materials to the information content of black holes, and have also become a rich field of study in mathematics; and

WHEREAS, Under the able leadership of Alexander Zamolodchikov, the C.N. Yang Institute for Theoretical Physics and more generally Stony Brook's Department of Physics and Astronomy continue to redefine the current field of theoretical physics, inspiring countless students; and

WHEREAS, As the inaugural C.N. Yang-Wei Deng Endowed Chair in Stony Brook's Department of Physics and Astronomy, Professor Alexander Zamolodchikov has made an indelible impact not only on the institution but on human's understanding of our shared reality; and

WHEREAS, Alexander Zamolodchikov is one of the most accomplished theoretical physicists worldwide; he has made groundbreaking advances,

with enormous impact in many physics fields, such as condensed matter physics, quantum statistical physics and high energy physics, including our understanding of fundamental matter and forces; and

WHEREAS, Furthermore, his insights have profoundly influenced the way theoretical physicists think about foundational concepts, providing new paths which are being explored at many leading theoretical physics centers, including Stony Brook; as the first C.N. Yang-Wei Deng Professor of Theoretical Physics, he continues the tradition of theoretical physics at Stony Brook at the very highest level; and

WHEREAS, It is the sense of this Legislative Body that when individuals of such noble aims and accomplishments are brought to our attention, it is appropriate to publicly proclaim and commend those individuals for the edification and emulation of others; now, therefore, be it

RESOLVED, That this Legislative Body pause in its deliberations to honor Alexander Zamolodchikov upon the occasion of his designation as recipient of the 2024 Breakthrough Prize in Fundamental Physics; and be it further

RESOLVED, That a copy of this Resolution, suitably engrossed, be transmitted to Alexander Zamolodchikov.