Ernesto Lupercio is a Full research scientist at Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (CINVESTAV-IPN), Mexico City.

In 1987, he represented Mexico at the XXVIII International Mathematical Olympiad in Cuba. He co-authored his first book, "Matemáticas Iniciales," with Luis Cruz, published by the National Polytechnic Institute in 1988 at the age of 17.

He earned his Bachelor's degree in Physics and Mathematics at the Higher School of Physics and Mathematics of the National Polytechnic Institute. In 1997, he completed his Ph.D. in mathematics under the guidance of Ralph Cohen at Stanford University, focusing on infinite-dimensional group theory, mathematical physics, topology, and algebraic geometry. His early research achievements include a collaboration with Ralph Cohen and Graeme Segal, where they proved a conjecture from the 1970s in algebraic topology proposed by James Milgram.

After his doctorate, Ernesto held a postdoctoral position at the Max Planck Institut für Matematik in Bonn, Germany. He later served as an Assistant Professor of Mathematics at the University of Michigan and became a Van Vleck Professor of Mathematics at the University of Wisconsin, Madison. His work there spanned geometry, topology, and quantum physics of orbifolds and gerbes in collaboration with Bernardo Uribe and research in motivic integrals with Mainak Poddar. He successfully addressed a conjecture of Witten with Uribe and, independently, with Poddar he resolved a conjecture of Ruan in bi-rational algebraic geometry.

Ernesto returned to Mexico as a researcher, initiating collaborative efforts in string topology with Ana González, Carlos Segovia, Bernardo Uribe, and Miguel Xicoténcatl. He has secured research funds as the principal investigator from esteemed institutions like the National Science Foundation (USA) and the National Academy of Sciences (USA).

In 2007, Ernesto was recognized as a Young Global Leader (Science) by the World Economic Forum in 2008, nominated by the Inter Academy Panel. In 2010, he was honored with the Ramanujan Prize by the International Center for Theoretical Physics (ICTP), the Norwegian Academy of Letters and Sciences, and the International Mathematical Union (IMU). This award recognized his exceptional contributions to algebraic topology, geometry, and mathematical physics, as well as his significant impact on mathematics in Mexico through his mentorship and collaborations. In 2013, he received the prestigious Marcos Moshinsky Research Award, the highest recognition from the Marcos Moshinsky Foundation for young scientists of exceptional quality and promise.

Ernesto was a supervisor of 6 PhD students and has supervised 17 Master Graduates in obtaining their degrees in mathematics. He has also served as the Vice President of the Mexican Mathematical Society.

Ernesto Lupercio is a Former Vice President of the Mexican Mathematical Society and is serving now as a Senior Executive Liaison for Global Outreach of the Institute of the Mathematical Sciences of the Americas (University of Miami).

Research interests:

- Mathematical Physics
- Topological Quantum Field Theories
- Tropical Geometry (Sandpiles)
- Applications of Machine Learning to Pure Mathematics

Awards and Honors:

- Ramanujan Prize, International Center for Theoretical Physics (ICTP), IMU and the Abel Foundation
- Lázaro Cárdenas Award, National Polytechnic Institute, México (Twice)
- Young Affiliate Member of TWAS (Developing World Sciences Academy)
- Young Global Leader (Science), World Economic Forum
- TWAS-ROLAC Award
- Marcos Moshinsky Research Award
- Member of the Mexican Team of the XXVIII International Mathematical Olympiad, Havana, 1987