

PROMOTION RECOMMENDATION  
The University of Michigan  
College of Literature, Science, and the Arts

Leopoldo A. Pando Zayas, assistant professor of physics, College of Literature, Science, and the Arts, is recommended for promotion to associate professor of physics, with tenure, College of Literature, Science, and the Arts.

Academic Degrees:

Ph.D.	1998	Moscow State University
M.S.	1995	Moscow State University

Professional Record:

2005	Visitor, Kavli Institute for Theoretical Physics, Santa Barbara
2002	Member, Institute for Advanced Study, Princeton University
2001 – present	Assistant Professor, Department of Physics, University of Michigan
1999-2001	Research Fellow, University of Michigan
1999	Instructor, University of Wisconsin, Green Bay, and Lecturer, University of Wisconsin, Stout

Summary of Evaluation:

Teaching – Professor Pando Zayas has taught a wide variety of courses, including introductory discussion sections as well as advanced undergraduate and graduate courses. Trained in a classical Russian-style of physics, he brings a unique perspective to the classroom. He has been extensively involved with students outside the classroom, collaborating in their research, mentoring the Student Physics Society, and coordinating our Research Experiences for Undergraduates (REU) Program, which is funded by the National Science Foundation.

Research – Professor Pando Zayas is an internationally recognized theoretical physicist. His primary field of research is string theory with recent emphasis on demonstrating how Quantum Chromodynamics (QCD) can be described by string theory techniques. He has published 32 papers in highly respected journals. His citation rate averages over 20 citations per paper. He has been invited to speak at all the top conferences in his specific research area. In addition to speaking about his research, he is gaining a reputation for being able to navigate the boundaries between mathematics and physics.

Recent and Significant Publications:

- “Central extensions of finite Heisenberg groups in cascading quiver gauge theories,” with B. A. Burrington and J. T. Liu, *Nuclear Physics*, B749, 2006, pp. 245-265.
- “Triangle anomalies from Einstein manifolds,” with S. Venenuti and Y. Tachikawa, *Advances in Theoretical and Mathematical Physics*, 10, 2006, pp. 395-432.
- “Towards supergravity duals of Chiral symmetry breaking in Sasaki-Einstein cascading quiver theories,” with B. Burrington, et al., *Journal of High Energy Physics*, 2005, hep-th/0504155.
- “Hadronic Density of States from String Theory,” with D. Vaman, *Physical Review Letters*, 91, 2003, p. 111602.

Service – Professor Pando Zayas has performed significant service for his department as a member of the Graduate Admissions Committee and the Graduate Qualifying Committee. He has been the advisor to students in the Society of Physics, organizer for the Physics Olympiad, and presenter at Saturday Morning Physics.

External Reviews:

Reviewer (A)

“Dr. Pando Zayas has written...several important papers with considerable citations. He also has an impressive list of collaborators... ..I have an extremely high opinion of Pando Zayas as a scientist.”

Reviewer (B)

“...his subfield...is primarily rather formal string theory. This is THE hot area for his generation, and consequently attracts some of the best theoretical talent. ...he is enormously energetic, both in getting around and in collaborating with lots of people...”

Reviewer (C)

“Pando Zayas’ specialty...is perhaps the best known and certainly the most active subfield of string theory of recent years.”

Reviewer (D)

“...Leo sets the highest intellectual standards for himself and others. He is a truly outstanding and unique individual. There is no question that, if Leo were an assistant professor coming up for tenure at [my university], he would be promoted. (By all accounts, this is a top-ten Physics Department.)”

Reviewer (E)

“Leo continues to work at a vigorous pace. ...I have every reason to expect much more from him in the future. I certainly feel that he chooses interesting problems to work on. Leo’s work is now widely known. ...I definitely support promotion of Leo Pando Zayas to Associate Professor with tenure at the University of Michigan.”

Reviewer (F)

“Leo’s field of expertise is string theory and its interface with quantum field theory. In my opinion, a top physics department such as yours should have a strong research group in this field.”

Reviewer (G)

“I think that Leo is a very good and solid researcher. He works carefully and obtains solid results. He has written interesting papers in string theory. ...his seminars are very clear and to the point. He has worked well with many collaborators and interacts well with his colleagues.”

Reviewer (H)

“His two best cited works are...interesting and well-regarded elaborations of aspects of the duality [between gauge theory and gravity]...both are strong contributions to the field. ... [He is] making interesting, solid contributions to the field.”

Reviewer (I)


“My overall assessment is that Dr. Pando Zayas is a theoretical physicist [of his generation] doing string theory research at a world-class level and I believe he has the potential to become a leader in his field. ...I have had many occasions to see him present his research in seminars...these lectures were clear and well organized.”

Reviewer (J)

“Leo’s work in string theory has ranged over some of the most interesting and actively-pursued areas. ...it is beyond doubt that Leo’s work has been of a consistently high standard. He clearly meets or exceed the criteria for promotion to Associate Professor with tenure...”

Summary of Recommendation:

Professor Pando Zayas has shown the highest intellectual quality, productivity, inventiveness, and leadership in creating and disseminating knowledge in physics. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Assistant Professor Leopoldo A. Pando Zayas be promoted to the rank of associate professor of physics, with tenure, in the College of Literature, Science, and the Arts.



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Terrence J. McDonald  
Arthur F. Thurnau Professor,  
Professor of History, and Dean  
College of Literature, Science, and the Arts

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