

All members, families and friends of **Polish-American Engineers Association** are cordially invited to attend our meeting. A business meeting will precede the technical presentation. Coffee and pastries will be served during the intermission.

DATE: **Friday, February 19, 2010**

TIME: **7:30 p.m.**

PLACE: **Polish National Alliance**  
*Museum Hall; Lower Level*  
6100 North Cicero Ave.  
Chicago, Illinois

PLEASE TAKE NOTE OF THE NEW MEETING LOCATION.

*Parking access information:* <http://polishengineers.org/data/news/368.pdf>

PLEASE REMEMBER OUR WEB-PAGE ADDRESS: [www.polishengineers.org](http://www.polishengineers.org)

SPEAKER: **Professor John J. Dykla**  
Department of Physics  
Loyola University, Chicago

TOPIC: **Can Quantum Gravity make “Warp Drive” possible?**

“Warp Drive” has been at the heart of the “Star Trek” science fiction shows since the first series began in the autumn of 1966. Of immense value to stories, it lets a crew of characters in a spacecraft move between points in our galaxy separated by many light years in a very short time.

From the outset, scientists enjoying the fictional adventures thought they were required to suspend disbelief. According to relativity theory nothing can travel faster than light. But this is a classical restriction which may be defeated in a quantum theory.

For some time this possibility did not look promising because it seemed to require enormous quantities of negative energy (somewhat like the “dark energy” accelerating the expansion of the universe.) But recently it has been shown that the energy requirement may be relaxed by many orders of magnitude. If this ever leads to practical engines, I propose they be named to honor Gene Roddenberry, the creator of the Star Trek universe!

**Professor Dykla** was born and grew up in the Holy Trinity Parish in the Polish community of Chicago, the only child of a father born on a farm in northern Wisconsin and a mother from Chicago. All of his grandparents were born and grew up in Poland, in a country or small towns near Cracow. They never met until coming to America as young adults. His parents lived in an apartment in a building owned by his maternal grandparents, who lived in another of the six apartments. Thus he had opportunity to learn Polish language and culture from them. After education in the parish grammar school and high school, Professor Dykla got his BS with physics major at Loyola University in Chicago and then his PhD at Caltech, in Pasadena,

California, with a thesis about the generation of gravitational waves during the collapse of a star to form a black hole in space. He spent two years as a post-doctoral fellow at the University of Texas at Austin, before returning to Chicago to join the faculty at LUC. Throughout his career, his research has focused on theoretical astrophysics using the general theory of relativity. In recent years, he has been particularly interested in cosmology, the study of a large scale structure and evolution of the universe.



**Special Invitation** for Polish engineers and technicians who recently came to Chicago.



**The 2010 Engineer Week** as in the past will be celebrated in the last week of February, the Birthday of George Washington. Main banquet will be held Friday February 26, 2010 at the University Club, 55 East Monroe Ave.



After almost one year we were able to secure 25 members and their families needed to form a **Lodge within Polish National Alliance**. We will be joining as one of the first professional organizations;



**PAEA 2010 Membership Dues.** Our new Fiscal Year begins in January. Please plan to pay your 2010 dues this month. If you can not attend this meeting please mail your membership fee to our Treasurer (check payable to PAEA):

Mr. Rich Kaczmarek  
1725 South Crescent  
Park Ridge Illinois

Dues are \$50 per year; senior citizens and students \$25 per year.  
Questions? Please send an email to: [paea.info@gmail.com](mailto:paea.info@gmail.com)