

# The Legacy of Vladas Vanagas

Brian G Wybourne

Instytut Fizyki,

Uniwersytet Mikołaja Kopernika - Polska

28 April 2000

## The Jucys-Levinson-Vanagas Collaboration 1960

- Diagrammatic Representation of Angular Momentum (1960)
- The Israel Translation (1962)
- Impact in the West
- Subsequent Developments
- Phases: Jucys and Bandazaitis (1965)
- Feynman Diagrams: *Second Quantization and Atomic Spectroscopy* B R Judd Johns Hopkins (1967)
- Compact Groups: *Diagram techniques in group theory* G E Stedman Cambridge University Press (1990)

## Algebraic Methods in Nuclear Theory (1971)

- Extensive treatment of the symmetric group  $S_n$
- General presentation of tensor operators for arbitrary compact Lie groups
- Application to nuclear models
- Remarkable appendix of tabulated data
- $O_{n-1} \rightarrow S_n$
- R C King and B G Wybourne, *Analogies between finite-dimensional irreps of  $SO(2n)$  and infinite-dimensional irreps of  $Sp(2n, \mathbb{R})$* , J. Math. Phys. (August 2000)

## Foundations of the Microscopic Nuclear Theory (1988)

- The microscopic theory of nuclear models
- The collective and shell models of nuclei
- The interacting boson model of nuclei
- Non-compact symplectic groups and nuclei
- Translation?

## An appreciation of Vladas Vanagas

- First contacts with Vladas (1968)
- An Invitation (1988)
- E-mail - Yale University
- The Fulfilled and Unfulfilled Dreams
- What might have been