



PROF. DR HAB. RYSZARD RUDNICKI

TITLE:

WITH ANDRZEJ LASOTA THERE AND BACK AGAIN

WE WILL BEGIN BY BRIEFLY INTRODUCING THE SCIENTIFIC PROFILE OF PROFESSOR ANDRZEJ LASOTA AND HIS EXCEPTIONALLY VARIED RESEARCH TOPICS. THIS DIVERSITY OF RESEARCH AND METHODS USED WAS EXTREMELY INSPIRING TO HIS STUDENTS.

DURING THE LECTURE, I INTEND TO PRESENT THE INFLUENCE OF THESE INSPIRATIONS ON SOME OF MY SCIENTIFIC RESEARCH.

THE FIRST TOPIC DISCUSSED WILL BE THE ASYMPTOTIC PROPERTIES OF MARKOV OPERATORS AND SEMIGROUPS. WE WILL PRESENT THE LASOTA-YORKE LOWER FUNCTION THEOREM AND ITS GENERALIZATIONS, E.G. A THEOREM ON DECOMPOSITION OF MARKOV SEMIGROUPS. WE WILL ALSO GIVE SOME OF THEIR APPLICATIONS.

THE NEXT SUBJECT WILL BE ERGODIC AND CHAOTIC PROPERTIES OF DYNAMICAL SYSTEMS GENERATED BY PARTIAL DIFFERENTIAL EQUATIONS.

IN THE LAST TOPIC WE SHOW THAT THE DISTRIBUTION OF ENERGY OF GAS PARTICLES AND A PHENOTYPIC MODEL OF A POPULATION CAN BE STUDIED USING THE SAME METHOD.

