1099-60-77 **Alexander Melnikov*** (melnikov@ualberta.ca), 632 CAB, Edmonton, AB , Canada.
Orthogonal polynomials technique and its applications in mathematical finance and insurance.

The primary goal of the talk is to present a new approach to financial and actuarial modeling which is based on polynomial extensions of probability distributions for financial assets and insurance claims. Besides improvements in modeling of asset returns and insurance claim sizes a better option pricing as well as risk measures calculations become possible using this approach. Theoretical findings are supported with numerical examples and illustrations exploiting financial and actuarial statistical data. (Received January 27, 2014)