



## Yuri Kamyshkov

Professor of Physics and  
Astronomy



Dr. Yuri Kamyshkov is a professor in the departments of physics and astronomy. He is also a member of the American Physics Society.

Professor Kamyshkov's research interests include:

- Measurement of CP violation phase and neutrino mass hierarchy in the long-baseline neutrino experiments.
- New Light-Dark-Matter detection experiments.
- Development of new neutron-antineutron transformation search experiment at Fermilab laboratory in collaboration of US, Europe, India and Japan.
- Neutron sources based on the spallation target.
- Accelerator-driven subcritical reactors (ADS) with Th fuel.
- Nonlinearity of liquid scintillators in low energy range.
- Water-based liquid scintillators.
- Photo-detectors: Si-diodes and PMTs.
- Detectors for low recoil energy detection (dark matter).
- Cold and ultra-cold neutron detectors.
- Detectors for antineutrons.
- Moderation of neutrons to cryogenic temperatures.
- High-m neutron super mirrors
- Shielding of Earth's magnetic field down to nT level.

Professor Kamyshkov graduated in 1970 from Moscow Institute of Physics and Technology (MPTI), Department of General and Applied Physics. He received his Ph.D. in 1978 in Physics and Mathematics (Nuclear and Particle Physics) from the Institute of Theoretical and Experimental Physics (ITEP) in Moscow

Prior to joining UT, Dr. Kamyshkov was an employee of the Institute for Theoretical and Experimental Physics of the Ministry of Atomic Energy and Industry for twenty-two years in Moscow, Russia where his latest position was leading senior scientist.

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More information on the UT Institute for Nuclear Security is available at [nuclear.utk.edu](http://nuclear.utk.edu).