



Royal
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The 2024 Chapman Medal is awarded to Professor Valery Nakariakov

It is with great pleasure that we award Professor Valery Nakariakov the RAS Chapman Medal.

He has transformed our understanding of the Sun through two particular works on magnetohydrodynamic (MHD) wave behaviour in the solar corona.

The first work, Nakariakov et al., *Science*, 1999, details the first demonstration of damped magnetic loop oscillations in the solar corona.

The second work, Nakariakov & Ofman (*Astronomy & Astrophysics*, 2001), details a crucial technique for the seismological probing of not only the magnetic field but also of the free magnetic energy stored in coronal active regions before flares and eruptions.

The original observational study, coupled with the subsequent seismic technique, has resulted in a new sub-field known as coronal seismology, whereby the wave behaviour of the solar coronal can be used to remote sense local magnetic field strength.

These results are essential for understanding the transfer of energy through the solar atmosphere for coronal heating, and for space weather forecasting.

Since publication, these works have enabled a step change in our understanding of the solar corona, and the techniques and insight are used not only by Professor Nakariakov and his team, but by teams around the world.

For these reasons Professor Valery Nakariakov is awarded the Chapman Medal.