

1999 Brouwer Award Winner - Vadim Anatol'evich Antonov

The following is the citation for the AAS Division on Dynamical Astronomy's award to Vadim Anatol'evich Antonov of the Institute of Theoretical Astronomy, St. Petersburg, Russia.

V. A. Antonov is undoubtedly the most distinguished member of the old Soviet school of stellar dynamics. He belongs to the St. Petersburg School of mathematics, founded by Euler and grown by Chebyshev.

Antonov is best known for his pioneering work on the stability of collisionless spherical systems and the thermodynamics appropriate to globular clusters which revealed the process commonly known as the Gravo-thermal Catastrophe. He predicted the 'radial orbit instability' in spherical systems, and pointed out that Galactic tidal fields can be the dominant perturber of long-period comet orbits. He has made important contributions to the study of period orbits in Hamiltonian systems, chaos in the three-body problem, non-linear oscillations and stability, and the approach to well-mixed quasi-equilibria.

The methods employed by Antonov were elegant and powerful, and far ahead of those employed by his contemporaries. His work has been described as having a completely finished quality, like a Mozart symphony; one can hardly imagine improving on it.

Source URL: <https://dda.aas.org/awards/brouwer/1999>