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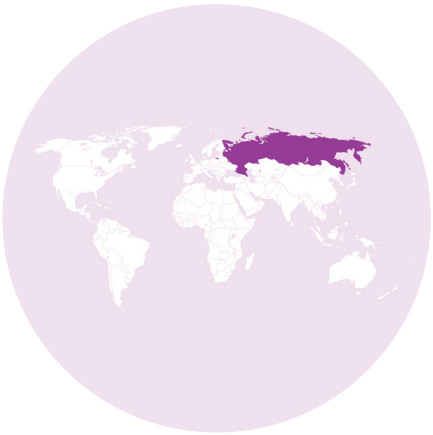
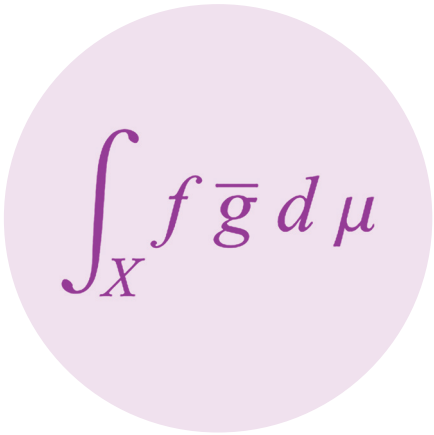
Famous women in hydraulics: Olga Ladyzhenskaya

Hydrolink

FAMOUS WOMEN IN HYDRAULICS

The IAHR task force on Strengthening Gender Equity intends to raise the profile and visibility of women who made major contributions to hydraulics.





Olga Ladyzhenskaya

1922–2004, Russia

Olga Aleksandrovna Ladyzhenskaya graduated as a mathematician from Moscow University in 1946 and in 1947 started a PhD thesis directed by S.L. Sobolev. From 1949, she was a Lecturer at Saint Petersburg University and from 1954, she was a staff member of the Steklov Mathematical Institute.

Ladyzhenskaya was appointed in 1961 head of the Mathematical Physics Laboratory LOMI. She was a Corresponding Member of the Russian Academy of Sciences from 1981 and there became Academician in 1990 in the Division of mathematics.

She was also awarded membership of Leopoldina Academy of Germany in 1985, the Italian Academy Dei Lincei in 1989, the American Academy of Sciences and Culture in 2001, and was a recipient of the Honorary Doctorate from Bonn University in 2002. Ladyzhenskaya acted also as president of the Saint Petersburg Mathematical Society.

She received a number of national awards both from the Soviet Union and Russia.

Ladyzhenskaya's scientific interests were in the general solution of functional spaces. She further provided estimates for boundary value problems of systems of partial differential equations, and she devised a general approach for hyperbolic differential equations in 1955. In 1953, she had explored the mixed problem for hyperbolic differential equations.

She also presented solution paths for these equations by using the Fourier, the Laplace and the finite differences methods.

She further investigated the regularity behavior of multi-dimensional problems, and she had a particular interest in the stability of hydrodynamic and mechanics problems where energy dissipation is of relevance.

Biography extracted from the IAHR book *Hydraulicians in Europe 1800-2000 (Vol. 2) A biographical dictionary of leaders in hydraulic engineering and fluid mechanics* by Willi H. Hager. ISBN: 9789078046066 p. 1405, 2003.
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