

A Hypercomplex method of solving the piecewise-continuous Dirichlet problem for the Lamé system

Tuesday, 22 September 2026 17:25 (5 minutes)

A hypercomplex method for solving the piecewise-continuous Dirichlet problem for the Lamé system in domains with corner points has been developed, which is based on the representation of solutions using the components of a monogenic function in a commutative biharmonic algebra. Using a biharmonic integral of the Cauchy type, the Dirichlet problem has been reduced to a system of integral equations.

References

[1] Serhii Gryshchuk, Sergiy Plaksa, Piecewise-continuous Dirichlet problem for Lamé system, Ukr. mat. visnyk, Vol. 23, No. 2, pp. 171-200 (2026).

Primary authors: GRYSHCHUK, Serhii (Institute of Mathematics of NAS of Ukraine, Zhytomyr Military Institute named after S.P. Korolyov); PLAKSA, Sergiy (Institute of Mathematics of NAS of Ukraine)

Presenter: GRYSHCHUK, Serhii (Institute of Mathematics of NAS of Ukraine, Zhytomyr Military Institute named after S.P. Korolyov)

Session Classification: Poster Session

Track Classification: MATHEMATICAL PHYSICS