# Exceptional case of the linear conjugation problem in weighted Hölder classes


- T. M. Urbanovich



*Differential Equations* **volume 51**, pages1669–1673 (2015)


## Abstract


We study the linear conjugation problem for the case in which the coefficient of the problem may have finitely many zeros and/or pole singularities on the contour. All studies are carried out in weighted H¨older classes with complex weight. We obtain a closed-form expression for the solution and the solvability conditions.




## References


1. 1.

   Gakhov, F.D., *Kraevye zadachi* (Boundary Value Problems), Moscow: Nauka, 1977.

   **MATH** **Google Scholar**

2. 2.

   Chibrikova, L.I., *Osnovnye granichnye zadachi dlya analiticheskikh funktsii* (Main Boundary Value Problems for Analytic Functions), Kazan, 1977.

   **Google Scholar**

3. 3.

   Usmanov, N., Singular Boundary Value Conjugation Problems, *Doctoral (Phys.–Math.) Dissertation*, Dushanbe, 2004.

   **Google Scholar**

4. 4.

Mikhailov, L.G. and Usmanov, N., Singular Boundary Value Conjugation Problems, *Dokl. Akad. Nauk*, 2002, vol. 387, no. 3, pp. 309–313.

MathSciNet Google Scholar

5. 5.

Urbanovich, T.M., Exceptional Case of the Characteristic Integral Equation with Cauchy Kernel in Weighted Classes, *Mat. Zametki Yakutsk. Gos. Univ.*, 2012, vol. 19, no. 2, pp. 155–161.

MATH Google Scholar

6. 6.

Muskhelishvili, N.I., *Singulyarnye integral'nye uravneniya* (Singular Integral Equations), Moscow: Nauka, 1968.

Google Scholar

## Author information

Affiliations

1. **Polotsk State University, Polotsk, Belarus**
   T. M. Urbanovich

Corresponding author

Correspondence to T. M. Urbanovich.

## Additional information

Original Russian Text © T.M. Urbanovich, 2015, published in Differentsial'nye Uravneniya, 2015, Vol. 51, No. 12, pp. 1689–1693.

## Rights and permissions



## About this article

Cite this article

Urbanovich, T.M. Exceptional case of the linear conjugation problem in weighted Hölder classes. *Diff Equat* **51,** 1669–1673 (2015). https://doi.org/10.1134/S0012266115120150

- 
- Received06 October 2014
- Published22 January 2016
- Issue DateDecember 2015
- DOIhttps://doi.org/10.1134/S0012266115120150

Keywords

- **Exceptional Case**
- **Singular Integral Equation**
- **Canonical Function**
- **Solvability Condition**
- **Conjugation Problem**