

Parallel algorithm of solving the problem of the electromagnetic WAVE diffraction by the curvilinear media interface

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2018, Institute of Advanced Scientific Research, Inc. All rights reserved. The diffraction problem of the electromagnetic TE-wave by the curvilinear media interface in the place waveguide is considered. The auxiliary integral-series identity is constructed in the form of matrix linear equation. The set of two series functional equations is reduced to infinite set of linear algebraic equations. Complete parallel algorithm of numerical solving the diffraction problem is described. It is shown that in the particular case of a piecewise linear media interface all coefficients of infinite set of equations can be calculated analytically.

Keywords

Electromagnetic wave diffraction, Inclined media interface, Infinite set of linear algebraic equations, Parallel algorithm, Place waveguide

References

- [1] Moaddab, S. R. The Foundations of the Commentary of the Qur'an, the Qom University Press, First Edition, Qom, pp. 187-188, 2009.
- [2] Shaker, M. K. The Foundations and Styles of the Commentary, the World Centre Press, Qom, p. 115, 2003.
- [3] Moaddab, S. R. The Foundations of the Commentary of the Qur'an, the Qom University Press, First Edition, Qom, pp. 189, 2009.
- [4] Rashad, A. A., the Philosophy of Religion, Culture & Thought Research Centre, Qom, p. 101, 2001.
- [5] Moaddab, S. R. The Foundations of the Commentary of the Qur'an, the Qom University Press, First Edition, Qom, pp. 190-191, 2009.
- [6] Barboor, A. Science and Religion, Translated by Khoramshahi, B, the University Press centre, Tehran, pp. 280-286, 1983.
- [7] Moaddab, S. R. The Foundations of the Commentary of the Qur'an, the Qom University Press, First Edition, Qom, pp. 193-195, 2009.
- [8] Majlesi, M. B. Bihar-ul-Anvar, the Vafa Press, Beirut, Vol. 89, p. 19, 1983.
- [9] S'aeidi Roashan, M.B. The Analysis of the Language of the Qur'an, Culture & Thought Research centre, Qom, pp. 25-33, 227, 2004.
- [10] Tabatabaei, M. H. the Qur'an in Islam, the Islamic Publications Office, Qom, pp. 19-70, 1993.
- [11] M'aarefat, M. H. the Qur'an in Verbal Language, pp.47, 48.
- [12] Javadi Amoli, A. Tasnim Commentry, the Israa Press, Qom, Vol.1, p.32, 2004.
- [13] Moaddab, S. R. The Foundations of the Commentary of the Qur'an, the Qom University Press, First Edition, Qom, pp. 198-207, 2009.

- [14] M'aarefat, M. H. Bayyenat Journal, No. 1, p. 54, 1994.
- [15] Javadi 'Amoli, A. Tasnim Commentry, the Israa Press, Qom, Vol.1, p.32, 2004.
- [16] Moaddab, S. R. The Foundations of the Commentary of the Qur'an, the Qom University Press, First Edition, Qom, pp. 205, 2009.
- [17] Mesbah Yazdi, M.T, M'arefat Journal, No.19, p. 16,1996.
- [18] Mesbah Yazdi, Ghabasat Journal, No. 13, P. 32.
- [19] Mesbah Yazdi, The History of the Philosophy of West, Vol. 2, p 971, Ghabasat Journal, No. 13, p. 34.
- [20] Plato, Plato's Philosophical Writings, the Essay of Ayvsvfrvun, Vol. 1, PP. 224-252.
- [21] Mesbah Yazdi, M.T, the Philosophy of Ethics, Compiled by Sharifi, A. H, the International Press,Tehran, PP. 185-188, 2002.
- [22] Makarem Shirazi, N. Nemooneh Commentary, Vol. 15, PP. 172-176.
- [23] Saffarzadeh, T. English translation of The Holy Qur'an, 2007.
- [24] Yusuf Ali, A. Translation and Commentary of the Holy Qur'an, 2 Edition, 1977.