Prof. YURDANUR TULUNAY

Personal Information

Email: ytulunay@metu.edu.tr
Web: https://avesis.metu.edu.tr/ytulunay

Advising Theses

TULUNAY Y., Forecasting of ionospheric electron density trough for characterization of aerospace medium, Postgraduate, Z.Kocabaş(Student), 2009
TULUNAY Y., Influences of interplanetary magnetic field on the variability of aerospace media, Postgraduate, T.Yapıcı(Student), 2007
TULUNAY Y., Application of risk management process on wave propagation in aerospace medium, Postgraduate, S.Konukcu(Student), 2006
TULUNAY Y., TEKİNALP O., Modeling and simulation of the Türksat 1B Satellite using artificial neural networks, Postgraduate, A.Türker(Student), 1999
TULUNAY Y., The effects of interplanetary magnetic field IMF on the earth space radio systems, Postgraduate, A.Kaya(Student), 1998
TULUNAY Y., TEKİNALP O., Investigation of minimum fuel maneuvers of Türksat 1B satellite with possible use of its simulator, Postgraduate, T.Erdal(Student), 1998
TULUNAY Y., A Model study of ionospheric critical frequencies for telecommunication purposes, Postgraduate, Ş.A(Student), 1998
TEKİNALP O., TULUNAY Y., Modeling and control of beam type structures with surface bonded piezoelectric sensors and actuators, Postgraduate, B.Yağcı(Student), 1998
TEKİNALP O., TULUNAY Y., Orbit dynamics attitude dynamics and control:Investigation into possible applications to Türksat, Postgraduate, H.Özge(Student), 1997
TULUNAY Y., Two simulation models:low altitude flows and the Türksat satellite orbit, Postgraduate, C.Şakacı(Student), 1996

Published journal articles indexed by SCI, SSCI, and AHCI

I. **The effect of geomagnetic activity changes on the ionospheric critical frequencies (foF2) at magnetic conjugate points**
TİMOÇİN E., ÜNAL İ., TULUNAY Y., GÖKER Ü. D.
ADVANCES IN SPACE RESEARCH, vol.62, no.4, pp.821-828, 2018 (SCI-Expanded)

II. **Progress in space weather modeling in an operational environment**
Tsagouri I., Belehaki A., Bergeot N., Cid C., Delouille V., Egorova T., Jakowski N., Kutiev I., Mikhailov A., Nunez M., et al.
JOURNAL OF SPACE WEATHER AND SPACE CLIMATE, vol.3, 2013 (SCI-Expanded)

III. **The COST example for outreach to the general public: I love my Sun**
TULUNAY Y., Crosby N. B., Tulunay E., Calders S., Parnowski A., Sulic D.
JOURNAL OF SPACE WEATHER AND SPACE CLIMATE, vol.3, 2013 (SCI-Expanded)

IV. **Performance of IRI-based ionospheric critical frequency calculations with reference to forecasting**
ÜNAL İ., Senalp E. T., YEŞİL A., Tulunay E., TULUNAY Y.
RADIO SCIENCE, vol.46, 2011 (SCI-Expanded)

V. **Aspects of HF radio propagation**
Warrington E. M., Bourdillon A., Benito E., Bianchi C., Monilie J., Muriuki M., Pietrella M., Rannou V., Rothkaehl H., Saillant S., et al.
ANNALS OF GEOPHYSICS, vol.52, pp.301-321, 2009 (SCI-Expanded)

VI. **HF spectrum occupancy and antennas**
Casimiro A., Azevedo J., Economou L., Haralambous H., Tulunay E., TULUNAY Y., Bahadirlar Y., Turk A. S., Warrington E. M.
ANNALS OF GEOPHYSICS, vol.52, pp.339-357, 2009 (SCI-Expanded)

VII. **Near-Earth space plasma modelling and forecasting**
Strangeways H. J., Kutiev I., Cander L. R., Kouris S., Gherm V., Marin D., De La Morena B., Pryse S. E., Perrone L., Pietrella M., et al.
ANNALS OF GEOPHYSICS, vol.52, pp.255-271, 2009 (SCI-Expanded)

VIII. **Total electron content (TEC) forecasting by Cascade Modeling: A possible alternative to the IRI-2001**
Senalp E. T., Tulunay E., TULUNAY Y.
RADIO SCIENCE, vol.43, no.4, 2008 (SCI-Expanded)

IX. **A case study on the ELF characterization of the Earth-ionosphere cavity: Forecasting the Schumann resonance intensities**
TULUNAY Y., Altuntas E., Tulunay E., Price C., ÇİLOĞLU T., Bahadirlar Y., Senalp E. T.
JOURNAL OF ATMOSPHERIC AND SOLAR-TERRESTRIAL PHYSICS, vol.70, pp.669-674, 2008 (SCI-Expanded)

X. **A fuzzy neural network model to forecast the percent cloud coverage and cloud top temperature maps**
TULUNAY Y., Senalp E. T., Oez S., Dorman L. I., Tulunay E., Menteş Ş. S., Akcan M. E.
ANNALES GEOPHYSICAE, vol.26, no.12, pp.3945-3954, 2008 (SCI-Expanded)

XI. **Forecasting total electron content maps by neural network technique**
Tulunay E., Senalp E. T., Radicella S. M., Tulunay Y.
RADIO SCIENCE, vol.41, no.4, 2006 (SCI-Expanded)

XII. **Overview of a graduate course delivered in Turkey, emphasizing solar-terrestrial physics and space weather**
Crosby N., Rycroft M., Tulunay Y.
SURVEYS IN GEOPHYSICS, vol.27, no.3, pp.319-364, 2006 (SCI-Expanded)

XIII. **Neural networks and cascade modeling technique in system identification**
Senalp E. T., Tulunay E., Tulunay Y.
ARTIFICIAL INTELLIGENCE AND NEURAL NETWORKS, vol.3949, pp.84-91, 2006 (SCI-Expanded)

XIV. **Forecasting magnetopause crossing locations by using Neural Networks**
Tulunay Y., Sibeck D., Senalp E., Tulunay E.
SPACE WEATHER, vol.36, no.12, pp.2378-2383, 2005 (SCI-Expanded)

XV. **The neural network technique - 1: a general exposition**
Tulunay Y., Tulunay E., Senalp E.
PATH TOWARD IMPROVED IONOSPHERE SPECIFICATION AND FORECAST MODELS, vol.33, no.6, pp.983-987, 2004 (SCI-Expanded)

XVI. **The neural network technique - 2: an ionospheric example illustrating its application**
Tulunay Y., Tulunay E., Senalp E.
PATH TOWARD IMPROVED IONOSPHERE SPECIFICATION AND FORECAST MODELS, vol.33, no.6, pp.988-992, 2004 (SCI-Expanded)

XVII. **Two solar eclipses observations in Turkey**
Tulunay E., Tulunay Y., Ozkaptan C., Senalp E., Aydogdu M., Ozcan O., Guzel E., Yesil A., Unal I., Canyilmaz M., et al.
NUOVO CIMENTO DELLA SOCIETA ITALIANA DI FISICA C-GEOPHYSICS AND SPACE PHYSICS, vol.25, no.2, pp.251-258, 2002 (SCI-Expanded)

XVIII. **An attempt to model the influence of the trough on HF communication by using neural networks**
Tulunay Y., Tulunay E., Senalp E.
RADIO SCIENCE, vol.36, no.5, pp.1027-1041, 2001 (SCI-Expanded)

XIX. **Temporal and spatial forecasting of the foF2 values up to twenty four hours in advance**
Tulunay E., Ozkaptan C., Tulunay Y.
PHYSICS AND CHEMISTRY OF THE EARTH PART C-SOLAR-TERRESTIAL AND PLANETARY SCIENCE, vol.25, no.4, pp.281-285, 2000 (SCI-Expanded)

XX. **The ionospheric foF2 data over Istanbul and their response to solar activity for the years 1964-1969 and 1993**
Ozguc A., Atac T., Tulunay Y., Stanislawska I.
STUDIA GEOPHYSICA ET GEODAETICA, vol.42, no.2, pp.112-118, 1998 (SCI-Expanded)

XXI. **Examination of the solar cycle variation of foF2 by using solar flare index for the cycle 21**
Ozguc A., Tulunay Y., Atac T.
SOLAR-TERRESTRIAL RELATIONS: PREDICTING THE EFFECTS ON THE NEAR- EARTH ENVIRONMENT, vol.22, no.1, pp.139-142, 1998 (SCI-Expanded)

XXII. **Forecasting of ionospheric critical frequency using neural networks**
Altinay O., Tulunay E., Tulunay Y.
GEOPHYSICAL RESEARCH LETTERS, vol.24, no.12, pp.1467-1470, 1997 (SCI-Expanded)

XXIII. **The possible effect of the IMF By and Bz components on the high latitude COST 251 area**
Tulunay Y., Kaya A., Kaymaz Z.
QUANTITATIVE DESCRIPTION OF IONOSPHERIC STORM EFFECTS AND IRREGULARITIES, vol.20, no.9, pp.1723-1726, 1997 (SCI-Expanded)

XXIV. **VARIABILITY OF MIDLATITUDE IONOSPHERIC FOF2 COMPARED TO IMF-POLARITY INVERSIONS**
TULUNAY Y.
OFF MEDIAN PHENOMENA AND INTERNATIONAL REFERENCE IONOSPHERE, vol.15, no.2, pp.35-44, 1994 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

I. **Minimum fuel station keeping maneuver strategy for Turksat geostationary satellites**
Erdal T., Tekinalp O., Tulunay Y.
3rd International Symposium on Reducing the Cost of Spacecraft Ground Systems and Operations, Tainan, Taiwan, 22 - 24 March 1999, vol.3, pp.33-40

II. **An attitude control sysytem design based on the TURKSAT-1B geostationary satellite**
Tekinalp O., Uslu O., Tulunay Y.
COSPAR Colloquium on Microsatellites as Research Tools, Tainan, Taiwan, 14 - 17 December 1997, vol.10, pp.143-151

Metrics

Publication: 26
Citation (WoS): 372
Citation (Scopus): 280
H-Index (WoS): 9
H-Index (Scopus): 8