

Prof.Dr. Mehmet Ilıcak

Kişisel Bilgiler

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Eğitim Bilgileri

Doktora, University of Miami, Rosenstiel School Of Marine And Atmospheric Science, Meteorology And Physical Oceanography, Amerika Birleşik Devletleri 2005 - 2009

Yüksek Lisans, Boğaziçi Üniversitesi, Makina Mühendisliği, Türkiye 2001 - 2003

Lisans, Boğaziçi Üniversitesi, Makina Mühendisliği, Türkiye 1996 - 2001

Yaptığı Tezler

Doktora, Development and Applications of Second-Order Turbulence Closures for Mixing in Overflows, University Of Miami, Rosenstiel School Of Marine And Atmospheric Science, Meteorology And Physical Oceanography, 2009

Yüksek Lisans, Operator Decomposition Techniques for the 3-D Numerical Analysis of Electronic Equipment Cooling, Boğaziçi Üniversitesi, Makina Mühendisliği, Makina Mühendisliği, 2003

Araştırma Alanları

Teknik Bilimler, Atmosfer Bilimleri ve Meteoroloji Mühendisliği, Atmosfer-Okyanus Etkileşimi, İklim

Akademik Unvanlar / Görevler

Prof.Dr., İstanbul Teknik Üniversitesi, Avrasya Yer Bilimleri Enstitüsü, İklim Ve Deniz Bilimleri, 2023 - Devam Ediyor

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **Monitoring and Forecasting the Ocean State and Biogeochemical Processes in the Black Sea: Recent Developments in the Copernicus Marine Service**
Ciliberti S. A., Gregoire M., Staneva J., Palazov A., Coppini G., Lecci R., Peneva E., Matreata M., Marinova V., Masina S., et al.
JOURNAL OF MARINE SCIENCE AND ENGINEERING, cilt.9, sa.10, 2021 (SCI-Expanded)
- II. **Climate Signals in the Black Sea From a Multidecadal Eddy-Resolving Reanalysis**
Lima L., Ciliberti S. A., Aydogdu A., Masina S., Escudier R., Cipollone A., Azevedo D., Causio S., Peneva E., Lecci R., et al.

FRONTIERS IN MARINE SCIENCE, cilt.8, 2021 (SCI-Expanded)

- III. **Modeling of the Turkish Strait System Using a High Resolution Unstructured Grid Ocean Circulation Model**
Ilicak M., Federico I., Barletta I., Mutlu S., Karan H., Ciliberti S. A., Clementi E., Coppini G., Pinardi N.
JOURNAL OF MARINE SCIENCE AND ENGINEERING, cilt.9, sa.7, 2021 (SCI-Expanded)
- IV. **Overview of the Norwegian Earth System Model (NorESM2) and key climate response of CMIP6 DECK, historical, and scenario simulations**
Seland O., Bentsen M., Olivie D., Toniazzo T., Gjermundsen A., Graff L. S., Debernard J. B., Gupta A. K., He Y., Kirkevåg A., et al.
GEOSCIENTIFIC MODEL DEVELOPMENT, cilt.13, sa.12, ss.6165-6200, 2020 (SCI-Expanded)
- V. **Evaluation of global ocean-sea-ice model simulations based on the experimental protocols of the Ocean Model Intercomparison Project phase 2 (OMIP-2)**
Tsujino H., Urakawa L. S., Griffies S. M., Danabasoglu G., Adcroft A. J., Amaral A. E., Arsouze T., Bentsen M., Bernardello R., Boening C. W., et al.
GEOSCIENTIFIC MODEL DEVELOPMENT, cilt.13, sa.8, ss.3643-3708, 2020 (SCI-Expanded)
- VI. **An assessment of the Indian Ocean mean state and seasonal cycle in a suite of interannual CORE-II simulations**
Rahaman H., Srinivasu U., Panickal S., Durgadoo J., Griffies S. M., Ravichandran M., Bozec A., Cherchi A., Voldoire A., Chassignet E. P., et al.
OCEAN MODELLING, cilt.145, 2020 (SCI-Expanded)
- VII. **Arctic Ocean Response to Greenland Sea Wind Anomalies in a Suite of Model Simulations**
Mulhewijk M., Ilicak M., Cornish S. B., Danilov S., Gelderloos R., Gerdes R., Haid V., Haine T. W. N., Johnson H. L., Kostov Y., et al.
JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS, cilt.124, sa.8, ss.6286-6322, 2019 (SCI-Expanded)
- VIII. **Description and evaluation of NorESM1-F: a fast version of the Norwegian Earth System Model (NorESM)**
Guo C., Bentsen M., Bethke I., Ilicak M., Tjiputra J., Toniazzo T., Schwinger J., Ottera O. H.
GEOSCIENTIFIC MODEL DEVELOPMENT, cilt.12, sa.1, ss.343-362, 2019 (SCI-Expanded)
- IX. **Variability along the Atlantic water pathway in the forced Norwegian Earth System Model**
Langehaug H. R., Sando A. B., Arthun M., Ilicak M.
CLIMATE DYNAMICS, cilt.52, ss.1211-1230, 2019 (SCI-Expanded)
- X. **Tracing the Imprint of River Runoff Variability on Arctic Water Mass Transformation**
Lambert E., Nummelin A., Pemberton P., Ilicak M.
JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS, cilt.124, sa.1, ss.302-319, 2019 (SCI-Expanded)
- XI. **Atlantic Water Heat Transport Variability in the 20th Century Arctic Ocean From a Global Ocean Model and Observations**
MULHEWIJK M., SMEDSRUD L. H., Ilicak M., DRANGE H.
JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS, cilt.123, sa.11, ss.8159-8179, 2018 (SCI-Expanded)
- XII. **JRA-55 based surface dataset for driving ocean-sea-ice models (JRA55-do)**
TSUJINO H., URAKAWA S., NAKANO H., SMALL R. J., KIM W. M., YEAGER S. G., DANABASOGLU G., SUZUKI T., BAMBER J. L., Bentsen M., et al.
Ocean Modelling, cilt.130, ss.79-139, 2018 (SCI-Expanded)
- XIII. **Causes of the large warm bias in the Angola-Benguela Frontal Zone in the Norwegian Earth System Model**
KOSEKI S., KEENLYSIDE N., DEMISSIE T., TONIAZZO T., COUNILLON F., BETHKE I., Ilicak M., SHEN M.
CLIMATE DYNAMICS, cilt.50, ss.4651-4670, 2018 (SCI-Expanded)
- XIV. **Quantifying spatial distribution of spurious mixing in ocean models**
Ilicak M.
OCEAN MODELLING, cilt.108, ss.30-38, 2016 (SCI-Expanded)
- XV. **Evaluation of NorESM-OC (versions 1 and 1.2), the ocean carbon-cycle stand-alone configuration of the Norwegian Earth System Model (NorESM1)**

- SCHWINGER J., GORIS N., TJIPUTRA J. F., KRIEST I., BENTSEN M., BETHKE I., Ilicak M., ASSMANN K. M., HEINZE C.
GEOSCIENTIFIC MODEL DEVELOPMENT, cilt.9, sa.8, ss.2589-2622, 2016 (SCI-Expanded)
- XVI. **Characteristics of the Nordic Seas overflows in a set of Norwegian Earth System Model experiments**
GUO C., Ilicak M., BENTSEN M., FER I.
OCEAN MODELLING, cilt.104, ss.112-128, 2016 (SCI-Expanded)
- XVII. **North and equatorial Pacific Ocean circulation in the CORE-II hindcast simulations**
TSENG Y., LIN H., CHEN H., Thompson K., BENTSEN M., BOENING C. W., BOZEC A., CASSOU C., CHASSIGNET E.,
CHOW C. H., et al.
OCEAN MODELLING, cilt.104, ss.143-170, 2016 (SCI-Expanded)
- XVIII. **An assessment of the Arctic Ocean in a suite of interannual CORE-II simulations. Part III: Hydrography and fluxes**
Ilicak M., Drange H., Wang Q., Gerdes R., Aksenov Y., Bailey D., Bentsen M., Biastoch A., Bozec A., Boening C., et al.
OCEAN MODELLING, cilt.100, ss.141-161, 2016 (SCI-Expanded)
- XIX. **An assessment of the Arctic Ocean in a suite of interannual CORE-II simulations. Part II: Liquid freshwater**
WANG Q., Ilicak M., GERDES R., DRANGE H., AKSENOV Y., BAILEY D. A., BENTSEN M., BIASTOCH A., BOZEC A.,
BOENING C., et al.
OCEAN MODELLING, cilt.99, ss.86-109, 2016 (SCI-Expanded)
- XX. **An assessment of the Arctic Ocean in a suite of interannual CORE-II simulations. Part I: Sea ice and solid freshwater**
WANG Q., Ilicak M., GERDES R., DRANGE H., AKSENOV Y., BAILEY D. A., BENTSEN M., BIASTOCH A., BOZEC A.,
BOENING C., et al.
OCEAN MODELLING, cilt.99, ss.110-132, 2016 (SCI-Expanded)
- XXI. **North Atlantic simulations in Coordinated Ocean-ice Reference Experiments phase II (CORE-II). Part II: Inter-annual to decadal variability**
DANABASOGLU G., YEAGER S. G., KIM W. M., BEHRENS E., BENTSEN M., BI D., BIASTOCH A., BLECK R., BOENING C.,
BOZEC A., et al.
OCEAN MODELLING, cilt.97, ss.65-90, 2016 (SCI-Expanded)
- XXII. **Consequences of future increased Arctic runoff on Arctic Ocean stratification, circulation, and sea ice cover**
NUMMELIN A., Ilicak M., LI C., SMEDSRUD L. H.
JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS, cilt.121, sa.1, ss.617-637, 2016 (SCI-Expanded)
- XXIII. **An assessment of Southern Ocean water masses and sea ice during 1988-2007 in a suite of interannual CORE-II simulations**
Downes S. M., FARNETI R., UOTILA P., GRIFFIES S. M., MARSLAND S. J., BAILEY D., BEHRENS E., BENTSEN M., BI D.,
BIASTOCH A., et al.
OCEAN MODELLING, cilt.94, ss.67-94, 2015 (SCI-Expanded)
- XXIV. **An assessment of Antarctic Circumpolar Current and Southern Ocean meridional overturning circulation during 1958-2007 in a suite of interannual CORE-II simulations**
FARNETI R., Downes S. M., GRIFFIES S. M., MARSLAND S. J., BEHRENS E., BENTSEN M., BI D., BIASTOCH A.,
BOENING C., Bozec A., et al.
OCEAN MODELLING, cilt.93, ss.84-120, 2015 (SCI-Expanded)
- XXV. **Energetics and mixing efficiency of lock-exchange flow**
Ilicak M.
OCEAN MODELLING, cilt.83, ss.1-10, 2014 (SCI-Expanded)
- XXVI. **Baroclinic Instability of the Faroe Bank Channel Overflow**
GUO C., Ilicak M., FER I., DARELIUS E., BENTSEN M.
JOURNAL OF PHYSICAL OCEANOGRAPHY, cilt.44, sa.10, ss.2698-2717, 2014 (SCI-Expanded)
- XXVII. **A framework for parameterization of heterogeneous ocean convection**
Ilicak M., Adcroft A. J., Legg S.
OCEAN MODELLING, cilt.82, ss.1-14, 2014 (SCI-Expanded)

- XXVIII. **An assessment of global and regional sea level for years 1993-2007 in a suite of interannual CORE-II simulations**
GRIFFIES S. M., Yin J., DURACK P. J., Goddard P., BATES S. C., BEHRENS E., BENTSEN M., BI D., BIASTOCH A., BOENING C. W., et al.
OCEAN MODELLING, cilt.78, ss.35-89, 2014 (SCI-Expanded)
- XXIX. **Simulations and scaling of horizontal convection**
Ilicak M., VALLIS G. K.
TELLUS SERIES A-DYNAMIC METEOROLOGY AND OCEANOGRAPHY, cilt.64, 2012 (SCI-Expanded)
- XXX. **Spurious dianeutral mixing and the role of momentum closure**
Ilicak M., Adcroft A. J., Griffies S. M., Hallberg R. W.
OCEAN MODELLING, ss.37-58, 2012 (SCI-Expanded)
- XXXI. **Dynamics of a dense gravity current flowing over a corrugation**
Ilicak M., LEGG S., ADCROFT A., HALLBERG R.
OCEAN MODELLING, cilt.38, ss.71-84, 2011 (SCI-Expanded)
- XXXII. **How does the Red Sea outflow water interact with Gulf of Aden Eddies?**
Ilicak M., OEZGOEKMEN T. M., JOHNS W. E.
OCEAN MODELLING, cilt.36, ss.133-148, 2011 (SCI-Expanded)
- XXXIII. **Comparison between a non-hydrostatic numerical model and analytic theory for the two-layer exchange flows**
Ilicak M., ARMI L.
OCEAN MODELLING, cilt.35, sa.3, ss.264-269, 2010 (SCI-Expanded)
- XXXIV. **Non-hydrostatic Modeling of Exchange Flows Across Complex Geometries**
Ilicak M., Oezgoekmen T. M., Oezsoy E., Fischer P. F.
OCEAN MODELLING, cilt.29, sa.3, ss.159-175, 2009 (SCI-Expanded)
- XXXV. **Very large eddy simulation of the Red Sea overflow**
Ilicak M., OEZGOEKMEN T. M., PETERS H., BAUMERT H. Z., ISKANDARANI M.
OCEAN MODELLING, cilt.20, sa.2, ss.183-206, 2008 (SCI-Expanded)
- XXXVI. **Performance of two-equation turbulence closures in three-dimensional simulations of the Red Sea overflow**
Ilicak M., OZGOKMEN T. M., PETERS H., BAUMERT H. Z., ISKANDARANI M.
OCEAN MODELLING, cilt.24, ss.122-139, 2008 (SCI-Expanded)
- XXXVII. **Operator splitting techniques for the numerical analysis of natural convection heat transfer**
Ilicak M., ECDER A., TURAN E.
INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS, cilt.84, sa.6, ss.783-793, 2007 (SCI-Expanded)

Desteklenen Projeler

Ilicak M., Yükseköğretim Kurumları Destekli Proje, Arktik Okyanusunda rüzgara bağlı değişikliklerin incelenmesi, 2017 - 2019

Bilimsel Kuruluşlardaki Üyelikler / Görevler

EGU, Üye, 2009 - Devam Ediyor

AGU, Üye, 2007 - Devam Ediyor

Bilimsel Hakemlikler

Nature Report, SSCI Kapsamındaki Dergi, Mayıs 2017

Ocean Modelling, SSCI Kapsamındaki Dergi, Ocak 2016

Journal of Fluid Mechanics, SSCI Kapsamındaki Dergi, Ocak 2012

Ocean Dynamics, SSCI Kapsamındaki Dergi, Ocak 2012

Metrikler

Yayın: 47

Atıf (WoS): 1155

Atıf (Scopus): 1193

H-İndeks (WoS): 17

H-İndeks (Scopus): 18

Akademi Dışı Deneyim

Diğer, Uni Research

Diğer, Princeton University

Diğer, University Of Miami