Personal facts

Date of birth: 02 October 1968

Work address: Academy of Athens
Research Center for Astronomy and Applied Mathematics (RCAAM)
Soranou Efessiou 4, 11527 Athens

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synoptic elements

Number of publications	
In refereed journals	39
In conference proceedings	30
h-index	14
citations (more than)	304
(self-citations are excluded)	

Academic

from 2021 : Research director at RCAAM
2010–2021: Main researcher at RCAAM
2006–2010: Assistant researcher RCAAM
1998–2006: scientific collaborator in research projects of the Research committee of the Academy of Athens (Supervisor Academician G. Contopoulos) in collaboration with the researchers of the RCAAM Dr. H. Dara and Dr. Th. Zachariadis.

Membership in committees

Member of the Scientific committee of the research centers of the Academy of Athens
Secretary of the council of the Hellenic Astronomical Society from 2018 to 2022.
Member of electoral committees for faculty promotions

Teaching

Participation in the teaching of the master level course for solar physics at the physics department of the National Kapodistrian University of Athens (NKUA)
Doctoral supervisor of M. Koletti which defended her PhD on September 10, 2026.
Supervisor of two master theses, three undergraduate theses (NKUA)
Member of examining committees of PhD defenses

Visitor in research centers

- Institut d'Astrophysique Spatiale Paris, April 2017

- Kiepenheuer Institut fur Sonnenphysik (KIS), Germany 2002

Studies

Phd diploma: Université Paris XI (1996)
PhD Subject: Numerical simulation of radiative transfer in moving solar prominences of the hydrogen spectral lines.
Supervisor: J.-C. Vial

conferences seminars summer schools

oral presentations, invited seminars

02/2026 10nth Metis workshop, Torino, Title: "Analysis of coronal dynamic structures observed with Metis coronagraph"

06/2025 17nth Hel.A.S. Conference, Πάτρα, Title:"Study of solar flare ribbons morphology and the action of plasmoids

07/2024 European Astronomical Society annual meeting, Padova Italy, 1-5 July, Title: "The transition region of solar flare loops"

06/2022 44rth COSPAR Scientific Assembly, 16-24 July Athens, "The lower solar atmosphere inside and outside coronal holes and the base of the solar wind"

07/2021 15th Hel.A.S. Conference, virtual, Title: "Study of the solar transition region using IRIS observations of a solar flare"

07/2019 14th Hel.A.S. Conference, Βόλος, Title: Analysis of resonant scattering and opacity effects in solar EUV spectra emitted by transition region plasma.

04/2019 Ομιλία στους μεταπτυχιακό μάθημα Ηλιακής Φυσικής του Πανεπιστημίου Αθηνών. Τίτλος: Θέρμανση του Στέμματος: το μοντέλο των νανο-εκλάμψεων.

04/2019 Ομιλία στους μεταπτυχιακό μάθημα Ηλιακής Φυσικής του Πανεπιστημίου Αθηνών. Τίτλος: Ηλιακή φασματοσκοπία στο υπεριώδες

10/2018 Ομιλία στο Φυσικό τμήμα του Πανεπιστημίου Κρήτης στο πλαίσιο του 40 years Anniversary Colloquium series. Τίτλος: Study of the solar corona and transition region through Extreme Ultraviolet Spectroscopy

06/2018 Workshop IRIS-9 25-29 June Gottingen, title: Resonant scattering processes at work in an active region as detected in the transition region Si IV lines near 140 nm with IRIS

07/2017 Workshop on Kappa Distributions and Statistical Mechanics. 10-14 July 2017, Corfu, Organizers, Livadiotis, G., Yoon, P., Dialynas, K., title: Influence of particle acceleration on the heating of the solar coronal plasma and a data-driven model on nanoflares in solar active region loops

06/2017 Flarecast scientific workshop, title: How to calculate solar flare precursors using time series of Differential Emission Measure averaged over flaring active regions

04/2017 Ομιλία στο Université Paris Sud, Institut d'Astrophysique Spatiale, Title Diagnostic du plasma de la région de transition entre la chromosphère et la couronne solaire par spectroscopie UV

04/2017 Ομιλία στο Observatoire de Paris/Meudon, title Diagnostic du plasma de la région de transition entre la chromosphère et la couronne solaire par spectroscopie UV

06/2016 Flarecast meeting Genoa, Title: Can DEM evolution calculated with SDO/AIA filters predict solar flares?

06/2016 EWASS European Week of Astronomy and Space Science. Title: Spectroscopic study of AR 11429 before CMEs eruptions

09/2015 Multi-wavelength Studies of the Solar Atmosphere: Celebrating the Career of C. Alissandrakis, Title: Geometry and flows of coronal loops observed with SOHO/SUMER and Hinode/EIS

06/2014 Διημερίδα, Εθνικό Αστεροσκοπείο Αθηνών, Ιούλιος, πρόγραμμα Θαλής Hellenic National Space Weather Research Network Τίτλος: Study of the NOAA 11429 results from EIS before the CME launch

09/2013 10th Hel.A.S. Conference, Αθήνα, Title: On the possible importance of coherent resonant scattering in the solar transition region. A study of the C IV 154.8; 155.0 nm doublet

06/2013 6th Coronal loop Workshop, La Roche en Ardennes, 25-27 June Τίτλος : Combining particle acceleration and coronal heating via data-constrained calculations of nanoflares in coronal loops

05/2013 Ομιλία στον τομέα αστροφυσικής και μηχανικής του τμήματος φυσικής του Πανεπιστημίου Αθηνών με θέμα επιτάχυνση σωματιδίων και θέρμανση του ηλιακού στέμματος μέσω νανοεκλάμψεων.

09/2013 11th Hel.A.S. Conference, Αθήνα, Τίτλος: On the possible importance of coherent resonant scattering in the solar transition region. A study of the C IV154.8; 155.0 nm doublet

05/2013 Ομιλία στον τμήμα φυσικής του ΕΚΠΑ, Τίτλος: Ο ρόλος της μαγνητικής επανασύνδεσης και της επιτάχυνσης φορτίων στις νάνο εκλάμψεις και στη θέρμανση του ηλιακού στέμματος

02/2013 School/Workshop on Space Weather, Πήλιον, Τίτλος: Extreme UltraViolet Spectrum from the Transition Region and Corona, στο πλαίσιο του προγράμματος Θαλής National Space Weather Research Network

04/2012 Spectroscopy of the dynamic Sun: University College London, UK Τίτλος: Study of flows and the three-dimensional shape of coronal loops observed by Hinode/EIS

09/2011 10th Hel.A.S. Conference, Ιωάννινα, Τίτλος: Nanoflare heating of coronal loops in an active region triggered by reconnecting current sheets

09/2010 Modern challenges in spectroscopy: Achievements and future challenges 13-15 September 2010, Cambridge UK, Τίτλος Study of a microflare observed with SUMER presenting resonant scattering in the C IV 1548Å, 1550Å lines

06/2009 Modern challenges in non-linear plasma physics Chalkidiki (15-19 June) Τίτλος: Particle acceleration and radiation processes through solar reconnecting current sheets

03/2008 Ομιλία στο Ινστιτούτο Διαστημικών Εφαρμογών και Τηλεπισκόπισης Τίτλος: Distribution of coronal heating in a solar active region

09/2007 8th Hel.A.S. Conference, Θάσος Τίτλος: Particle acceleration in single or multiple current sheets

06/2007 Συνέδριο: 3rd Coronal Loops Workshop, Santorini Τίτλος ομιλίας Modeling the 3-D geometry of coronal loops

09/2004 Συνέδριο: SOHO 15, "Coronal Heating," St. Andrews University, UK Τίτλος ομιλίας: Oscillation over a supergranular cell observed with SUMER

09/2003 6th Hel.A.S. Conference, Αθήνα Τίτλος ομιλίας: Study of a solar active region loop using EUV spectra

09/2003 Θερινό σχολείο Basic Processes of Turbulent Plasmas, Χαλκιδική Τίτλος ομιλίας: Electron acceleration and radiation in evolving complex active regions

11/2002 Συνέδριο με θέμα τους στεμματικούς βρόχους MEDOC, IAS, Paris France Τίτλος

ομιλίας: Physical parameters of coronal loops

10/2002 Σεμινάριο στο Kiepenheuer Institut fur Sonnenphysik (KIS), Freiburg, Germany Τίτλος ομιλίας: Sizes of quiet sun transition region

12/2001 Συνέδριο "The Quiet Sun: Transient Events and Coronal Heatings Workshop," MEDOC, Paris, France Τίτλος ομιλίας: Doppler shifts in the solar transition region

03/2001 Σεμινάριο στο KIS, Freiburg, Germany Τίτλος ομιλίας: Doppler shifts in the transition region

10/1994 Συνέδριο CDS-SUMER στην NASA, Goddard Space Flight Center, USA Τίτλος ομιλίας: Observation of prominence eruption

07/1994 Θερινό Σχολείο της European Space Agency, Albach Αυστρία Τίτλος ομιλίας: Observation of prominence eruption

Publications in referee journals

1. Koletti, M., Gontikakis, C., Patsourakos, S., Tsinganos, K., 2026, A&A, '*Analysis of a coronal hole jet in the chromosphere and the transition region with IRIS and SDO observations*' accepted for publication
2. Koletti, M., Gontikakis, C., Patsourakos, S., Tsinganos, K., 2024, A&A, 690, 11, '*Multiwavelength study of on-disk coronal-hole jets with IRIS and SDO observations*'
3. Gontikakis, C., Antiochos, S.K., Young, P.R., 2023, ApJ, 943, 120, '*The transition region of solar flare loops'*
4. Georgoulis, M.K., Bloomfield, D., S., Piana, M., Massone, A.M., Soldati, M., Gallagher, P.T., Pariat, E., Vilmer, N., Buchlin, E., Baudin, F., Csillaghy, A., Sathiapal, H., Jackson, D.R., Alingery, P., Benvenuto, F., Campi, C., Florios, K., Gontikakis, C., Guennou, C., Guerra, J., Kontogiannis, I., et al, 2021, JSWSC, 11, 39, 'The flare likelihood and region eruption forecasting (FLARECAST) project: flare forecasting in the big data & machine learning era'
5. Zouganelis, I., De Groof, A., Walsh, A.P., Williams, D.R., Mueller, D., St Cyr, O.C., Auchère, F., Berghmans, D., Fludra, A., Horbury, T.S., Howard, R., in total 182 authors and Gontikakis, C., 2020, A&A, 642, 3, '*The Solar Orbiter Activity Plan, Translating solar and heliospheric physics questions into action*'
6. Kontogiannis, I., Tsiropoula, G., Tziotziou, K., Gontikakis, C., Kuckein, C., Verma, M., Denker, C., 2020, A&A, 633, 67, '*Emergence of small scale magnetic flux in the quiet Sun*',
7. Gontikakis, C., Vial J.-C., 2018, A&A, 619, 64, *'Effects of resonant scattering of the Si IV doublet near 140 nm in a solar active region'*
8. Kontogiannis, I., Gontikakis C., Tsiropoula, G., Tziotziou, K., 2018, Sol. Phys., 293, 56., *'Probing the quiet solar atmosphere from the Photosphere to the Corona*'.
9. Gontikakis, C., Vial J.-C., 2016, A&A, 590, 86, '*Evidence of scattering effects influenced by plasma flows in C IV 1548, 1550A, spectral lines emitted from the Sun*.
10. Syntelis, P., Gontikakis, C., Patsourakos, S., Tsinganos, K., 2016, A&A, 588, 16, '*The spectroscopic imprint of the pre-eruptive configuration resulting into two major coronal mass ejections*'
11. Patsourakos, S., Georgoulis, M.K., Vourlidas, A., Nindos, A., Sarris, T., Anagnostopoulos, G., Anastasiadis, A., Chintzoglou, G., Daglis, I.A., Gontikakis, C., aand 26 co-authors, 2016, ApJ, 817, 14, '*The major Geoeffective Solar Eruptions of 2012 March 7: Comprehensive Sun-to-Earth Analysis.*'
12. Syntelis, P., Archontis, V., Gontikakis, C., Tsinganos, K., 2015, A&A, 584, 126, '*Emergence of non-twisted magnetic fields in the Sun: Jets and atmospheric response.*'

13. Gontikakis, C., Patsourakos, S., Efthymiopoulos, C., Anastasiadis, A., Georgoulis, M., 2013, ApJ, 771, 126, *Combining particle acceleration and coronal heating via data-constrained calculations of nanoflares in coronal loops*
14. Syntelis, P., Gontikakis, C., Georgoulis, M., Alissandrakis, C., Tsinganos, K., 2012, Sol. Phys., 280, 475, *Study of the three-dimensional shape and dynamics of coronal loops observed by Hinode/EIS*
15. Archontis, V., Tsinganos, K., Gontikakis, C., 2010, A&A, 512, 2, *Recurrent solar jets in active regions*
16. Gontikakis, C., Archontis, V., K. Tsinganos, 2009, A&A, 506, 45, *Observations and 3D MHD simulations of a solar active region jet*
17. Gontikakis C., Winebarger, A., Patsourakos, S., 2013, A&A, 550, 16, *Spectral diagnostic of a microflare. Evidences of resonant scattering in C IV 1548A, 1550A*
18. Gontikakis, C., Contopoulos, I., Dara, H.C., 2008, A&A, *Distribution of coronal heating in a solar active region*, 489, 441
19. Alissandrakis, C.E., Gontikakis, C., Dara, H.C., 2008, Sol. Phys., *Determination of the true shape of coronal loops*, 143, 73
20. Anastasiadis, A., Gontikakis, C., Efthymiopoulos. C., 2008, Sol. Phys. *Particle interactions with single or multiple 3D solar reconnecting current sheets*, 253, 199
21. Gontikakis, C., Anastasiadis, A., Efthymiopoulos C., 2007, MNRAS *Particle distribution and X-ray spectra in single or multiple solar current sheets'* ,378, 1019
22. Tsiropoula G., Tziotziou K., Wiegelmann T., Zachariadis Th.G., Gontikakis C., Dara H.C., 2007, Solar Phys., *'Evolution of a coronal loop system',* 2007, 240, 37
23. Gontikakis, C., Efthymiopoulos, C., Anastasiadis, A., 2006, MNRAS, 368, 293, '*Regular and chaotic dynamics in 3D reconnecting current sheets'*
24. Gontikakis, C., Dara H.C., Zachariadis Th.G., Alissandrakis C.E., Nindos A., Vial J.-C., Tsiropoula G., 2006, '*Multi-wavelength analysis of coronal loops',* Sol. Phys., 233, 57
25. Efthymiopoulos, C., Gontikakis C., Anastasiadis A., 2005, *'Particle acceleration in a reconnecting current sheet',* A&A., 443, 663
26. Gontikakis C., Peter H, Dara H. 2005, '*Coronal Oscillation above a supergranular cell of the Quiet Sun chromospheric network?',* A&A, 441, 1191
27. Gontikakis C., Petrie G.J.D., Dara H.C., Tsinganos K., 2005, 'A solar active region loop compared with a 2D MHD model'*, A&A, 434, 1155.*
28. Anastasiadis A., Gontikakis C., Vilmer N., Vlahos L., 2004, *'Acceleration and Radiation Model of Solar Energetic Particles in an Evolving Active Region'*, A&A, 422, 323.
29. Petrie G.J.D., Gontikakis C., Dara H.C., Tsinganos K., Aschwanden M.J. 2003, *'2D MHD modeling of compressible and heated coronal loops obtained via nonlinear separation of variables and compared to TRACE and SOHO observations'*, A&A, 409, 1065.
30. Gontikakis C., Peter H., Dara H.C., 2003, *'Sizes of Quiet Sun transition region structures'*, A&A, 408, 743.
31. Nindos A., Alissandrakis C.E., Gelfreikh G.B., Bogod V.M., Gontikakis C., 2002, *'Spatially resolved microwave oscillations above a sunspot',* A&A 386, 658.
32. Gontikakis C., Dara H. C., Alissandrakis C. E., Zachariadis Th.G., Vial J.-C., 2001, *'Dopplershifts in the transition region'*, A&A. 378, 257.
33. Zachariadis Th.G., Dara H.C., Alissandrakis C.E., Koutchmy S. and Gontikakis C., 2001, *'Fine Structure of the Quiet Solar Chromosphere: Limb-Crossing Features'* Sol Phys., 202, 41.
34. Gontikakis C., Dara H.C.: 2000, *"Dynamics of the Transition Region",* New Astronomy Review, 44, 599.
35. Gontikakis C., Vial J.-C. and Gouttebroze P.: 1997, *'Emission of hydrogen lines by moving solar prominences'*, A&A, 325, 803.
36. Gontikakis C., Vial J.-C. and Gouttebroze P.: 1997, *'Spectral diagnostics for eruptive prominences'*, Solar Phys. 172, 189
37. Gontikakis C. and Vial J.-C.: 1996, *'Prominence eruption and coronal mass ejections:*

Diagnostic and future observation from SOHO' Astro. Lett. And Communications, 34, 119.
38. Mein P., Demoulin P., Mein N., Engvold O., Molowny-Horas R., Heinzel P. and Gontikakis C.: 1996, *'Dynamics of solar magnetic arches in the photosphere and the chromosphere'* A&A, 305, 343.
39. Gontikakis C. and Hameury J.-M.: 1993, *'Constraints on the illumination model for soft X-ray transients'*, A&A 271, 118