INSTITUTO UNIVERSITÁRIO DE LISBOA

Ciência_Iscte

Public Profile

Warning: [2026-11-23 05:47] this document is a print-out of the Ciência-iul web portal and was automatically generated at the labeled date. The document has a mere informational purpose and represents the information contained on Ciência_Iscte at that date.

Helena Isabel Ferreira Soares

Professora Associada
Centro de Investigação em Matemática e Aplicações (UE)
Department of Mathematics (ISTA)

Contacts

E-mail	helena.soares@iscte-iul.pt
Office	D2.03
Telephone	217650303 (Ext: 220683)
Post Box	299

Research Interests

Algebraic Geometry: vector bundles and moduli spaces, derived categories

Academic Qualifications

University/Institution	Type	Degree	Period
Universidad de Barcelona	PhD	Matemática	2008
Instituto Superior Técnico - UTL	M.Sc.	Matemática Aplicada	2003
Faculdade de Ciências - UL	Licenciate	Matemática	1999

Teaching Activities

Teaching Year	Sem.	Course Name	Degree(s)	Coord.
2026/2027	2º	Calculus II	Bachelor Degree in Computer Engineering;	Yes
2026/2027	2º	Linear Algebra and Applications II	Bachelor Degree in Applied Mathematics for Economics and Finance;	Yes
2026/2027	1º	Calculus I	Bachelor Degree in Computer Engineering;	Yes
2026/2027	1º	Differential and Integral Calculus	Bachelor Degree in Finance and Accounting;	No
2025/2026	2º	Calculus II	Bachelor Degree in Computer Engineering;	Yes
2025/2026	1º	Calculus I	Bachelor Degree in Telecommunications and Computer Engineering;	Yes
2024/2025	2º	Calculus Topics II	Bachelor Degree in Data Science;	Yes
2024/2025	1º	Linear Algebra Fundamentals	Bachelor Degree in Data Science;	Yes
2024/2025	1º	Calculus I	Bachelor Degree in Telecommunications and Computer Engineering;	No
2023/2024	2º	Complements of Mathematics		Yes
2023/2024	1º	Mathematics		Yes
2022/2023	2º	Complements of Mathematics		Yes
2022/2023	1º	Mathematics		Yes
2020/2021	2º	Optimization		Yes
2020/2021	1º	Mathematics		Yes
2019/2020	1º	Mathematics		Yes

Total Citations

Web of Science®	45
Scopus	47

Publications

• Scientific Journals

- Scientific journal paper

1	Carvalho, L., Diogo, C., Mendes, S. & Soares, H. (2025). Quaternionic essential numerical range of complex operators. Linear and Multilinear Algebra, 73(7), 1332?1345. https://doi.org/10.1080/03081087.2024.2413653
2	Carvalho, L., Diogo, C., Mendes, S. & Soares, H. (2024). On the convexity of the quaternionic essential numerical range. Proceedings of the Edinburgh Mathematical Society, 67(3), 838?851. https://doi.org/10.1017/S0013091524000336 - Times Cited Web of Science®: 2 - Times Cited Scopus: 2 - Times Cited Google Scholar: 2
3	Carvalho, L., Diogo, C., Mendes, S. & Soares, H. (2024). A note on the essential numerical range of block diagonal operators. Forum Mathematicum, 36(5), 1147?1157. https://doi.org/10.1515/forum-2023-0166 - Times Cited Web of Science®: 1 - Times Cited Scopus: 1 - Times Cited Google Scholar: 1
4	Carvalho, L., Diogo, C., Mendes, S. & Soares, H. (2024). On the relation between S-spectrum and right spectrum. Complex Analysis and Operator Theory, 19(1). https://doi.org/10.1007/s11785-024-01631-0 - Times Cited Google Scholar: 2
5	Mendes, S., Soares, H. & Miró-Roig, M. (2021). Vector bundles E on P^3 with homological dimension 2 and chi(End E)=1. Forum Mathematicum, 33(3), 808?820. https://doi.org/10.1515/forum-2020-0169
6	Soares, H., Miró-Roig, M. & Mendes, S. (2020). A family of vector bundles on P3 of homological dimension 2 and X (EndE) = 1. Matemática Contemporânea, 47, 171?181. https://doi.org/10.21711/231766362020/rmc478
7	Soares, H., Sequeira, T. N., Marques, P. M., Gomes, O. & Ferreira-Lopes, A. (2018). Social infrastructure and the preservation of physical capital: equilibria and transitional dynamics. Applied Mathematics and Computation, 321, 614?632. https://doi.org/10.1016/j.amc.2017.10.056 - Times Cited Web of Science®: 2 - Times Cited Scopus: 2 - Times Cited Google Scholar: 5
8	Marchesi, S., Marques, P. M. & Soares, H. (2018). Monads on projective varieties. Pacific Journal of Mathematics, 296(1), 155?180. https://doi.org/10.2140/pjm.2018.296.155 - Times Cited Web of Science®: 3 - Times Cited Scopus: 2 - Times Cited Google Scholar: 8
9	Miró-Roig, R. M. & Soares, H. (2017). Exceptional bundles of homological dimension ${k}$. Forum Mathematicum, 29(3), 701?716. https://doi.org/10.1515/forum-2015-0058 - Times Cited Web of Science®: 2 - Times Cited Scopus: 2
10	Arrondo, E., Marchesi, S. & Soares, H. (2016). Schwarzenberger bundles on smooth projective varieties. Journal of Pure and Applied Algebra, 220(9), 3307?3326. https://doi.org/10.1016/j.jpaa.2016.02.016 - Times Cited Web of Science®: 2 - Times Cited Scopus: 2 - Times Cited Google Scholar: 2

11	Marques, P. M. & Soares, H. (2014). Cohomological characterisation of monads. Mathematische Nachrichten, 287(17-18), 2057?2070. https://doi.org/10.1002/mana.201300208 - Times Cited Web of Science®: 2 - Times Cited Scopus: 2 - Times Cited Google Scholar: 4
12	Miró-Roig, M. & Soares, H. (2009). Cohomological characterisation of Steiner bundles. Forum Mathematicum, 1(5), 871?891. https://doi.org/10.1515/FORUM.2009.043 - Times Cited Web of Science®: 8 - Times Cited Scopus: 8 - Times Cited Google Scholar: 12
13	Miró-Roig, M. & Soares, H. (2008). The stability of exceptional bundles on complete intersection 3-folds. Proceedings of the American Mathematical Society, 136(11), 3751?3757. https://doi.org/10.1090/S0002-9939-08-09258-7 - Times Cited Web of Science®: 3 - Times Cited Scopus: 3 - Times Cited Google Scholar: 3
14	Soares, H. (2007). Steiner bundles on the hyperquadric Q(n)subset of p(n+1), n >= 3. Communications in Algebra, 35(12), 4116?4136. https://doi.org/10.1080/00927870701544930 - Times Cited Web of Science®: 4 - Times Cited Scopus: 4
15	Incensi, F. & Soares, H. (2006). On some positive embedding of P^d. Le Matematiche, 61(2), 371?383.

• Books and Book Chapters

- Book editor

1	Pintassilgo, S., Almeida, A., Nunes, A. C., Soares, H., Correia, I., Costa, P....Alvito, M. (2025). Novos exemplos de práticas pedagógicas e estratégias de inovação pedagógica no Iscte. Iscte – Instituto Universitário de Lisboa.

• Conferences/Workshops and Talks

- Publication in conference proceedings

1	Macias Marques, P. & Soares, H. (2013). Monads on Segre varieties. Boletim da Sociedade Portuguesa de Matemática (pp. 83?86). Sociedade Portuguesa de Matemática.

- Talk

1	Diogo, C., Carvalho, L., Mendes, S. & Soares, H. (2025). FROM COMPLEX TO QUATERNIONIC NUMERICAL RANGE. IX International Workshop on Non-Associative Algebras in Lisbon,.
2	Soares, H., Carvalho, L., Diogo, C. & Mendes, S. (2025). On the relation between S-spectrum and right spectrum. IWOTA2025,.
3	Soares, H., Mendes, S., Diogo, C. & Carvalho, L. (2025). The right spectrum and the S-spectrum. Workshop on New Trends in Quaternions and Octonions - NTQO 2025,.

4	Soares, H., Diogo, C., Mendes, S. & Carvalho, L. (2024). Quaternionic essential numerical range of complex operators. 35th International Workshop on Operator Theory and its Applications,.
5	Mendes, S., Carvalho, L., Diogo, C. & Soares, H. (2024). S-spectrum and Numerical Range of Bounded Operators on Quaternionic Hilbert Spaces. Eighth Workshop New Trends in Quaternions and Octonions - NTQO 2024,.
6	Soares, H. (2023). On the existence of vector bundles E of homological dimension 2 and chi(End E)=1. Seminário CIMA/DMat/PDout,.
7	Soares, H., Carvalho, L., Mendes, S. & Diogo, C. (2023). On the convexity of the quaternionic essential numerical range. 16th Workshop on Numerical Ranges and Numerical Radii,.
8	Soares, H., Diogo, C., Mendes, S. & Carvalho, L. (2022). Quaternionic Numerical Range. Encontro Anual do CIMA,.
9	Soares, H. & Mendes, S. (2022). Vector bundles E on P3 with homological dimension 2 and chi(EndE) = 1. Encontro Conjunto Brasil-Portugal em Matemática,.
10	Soares, H., Diogo, C., Mendes, S. & Carvalho, L. (2022). Quaternionic Numerical Range. Encontro Nacional da Sociedade de Matemática Portuguesa 2022,.
11	Soares, H. (2018). Monads on projective varieties. Moduli spaces in Algebraic Geometry and Applications,. - Times Cited Scopus: 1
12	Soares, H. (2016). Exceptional bundles of homological dimension k. ENSPM 2016,. - Times Cited Google Scholar: 4
13	Soares, H. (2015). Monads on ACM varieties. Mathematical Meeting,.
14	Soares, H. (2015). Exceptional bundles of homological dimension k. Barcelona Algebraic Geometry Days,.
15	Soares, H. (2014). Classification of monads on ACM varieties. Seminário FOLGA,.
16	Soares, H. (2014). Simple and exceptional bundles of homological dimension 2. Geometry and Topology Seminar,.
17	Soares, H. (2014). Monads on smooth projective varieties. Seminário de Geometria Algébrica,.
18	Simone Marchesi & Soares, H. (2014). Determinantal varieties and Steiner bundles. Department of Mathematical Sciences Seminar,.
19	Simone Marchesi & Soares, H. (2014). Monads on ACM varieties. Seminário de Geometria Algébrica,.
20	Macias Marques, P. & Soares, H. (2014). Cohomological characterisation of monads. Genova-Torino-Milano Seminar,.
21	Soares, H. & Macias Marques, P. (2013). Monads on Segre varieties. Boletim da Sociedade Portuguesa de Matemática,, 83?86.

22	Soares, H., Tiago Neves Sequeira, Macias Marques, P., Gomes, O. & Ferreira-Lopes, A. (2013). Social Infrastructure and the Preservation of Physical Capital: Equilibria and Transitional Dynamics. 7th Annual Meeting of the Portuguese Economic Journal,.
23	Soares, H., Tiago Neves Sequeira, Macias Marques, P., Gomes, O. & Ferreira-Lopes, A. (2013). Social Infrastructure and the Preservation of Physical Capital: Equilibria and Transitional Dynamics. Seminário do CEFAGE – UE,.
24	Soares, H. (2013). Monads on Segre varieties. Seminário de Geometria Algébrica,.
25	Soares, H. (2013). Schwarzenberger and Steiner bundles on projective varieties. Seminário de Geometria Algébrica,.
26	Soares, H. (2012). Monads on multiprojective spaces. Encontro Nacional da SPM 2012,.
27	Soares, H. (2012). Cohomological characterisation of cohomology sheaves of some monads. Seminários do IMPA,.
28	Soares, H., Tiago Neves Sequeira, Macias Marques, P., Gomes, O. & Ferreira-Lopes, A. (2012). Social infrastructure and the preservation of physical capital: Equilibria and transitional dynamics. 18th International Conference Computing in Economics and Finance,.
29	Soares, H., Tiago Neves Sequeira, Macias Marques, P., Gomes, O. & Ferreira-Lopes, A. (2012). Social infrastructure and the preservation of physical capital: Equilibria and transitional dynamics. 44 Annual Conference Money, Macro and Finance,.
30	Soares, H. (2011). Cohomological characterisation of monads. 11th ALGA Meeting,.
31	Soares, H. (2011). Cohomological characterisation of monads. VBAC 2011,.
32	Miró-Roig, M., Laura Costa & Soares, H. (2011). Cohomological characterization of vector bundles. Instantons in complex geometry,.

• Other Publications

- Entries/Forewords/Afterwords

1	Pintassilgo, S., Almeida, A., Nunes, A. C., Soares, H., Correia, I., Costa, P....Alvito, M. (2025). Prefácio. Novos Exemplos de práticas pedagógicas e estratégias de inovação pedagógica no Iscte,, 5?6.

- Working Papers

1	Soares, H., T. N. Sequeira, Macias Marques, P., Orlando Manuel da Costa Gomes & Ferreira-Lopes, A. (2012). Social infrastructure and the preservation of physical capital: Equilibria and transitional dynamics. BRU-IUL Working Paper 2012/04,, 0?0.

- Recensions in journals

1	Soares, H. (2015). Skeleta of affine hypersurfaces. MathSciNet,.

2	Soares, H. (2014). Pfaffian quartic surfaces and representations of Clifford algebras. MathSciNet,.
3	Soares, H. (2014). Horrocks correspondence on a quadric surface. MathSciNet,. - Times Cited Web of Science®: 3 - Times Cited Scopus: 3
4	Soares, H. (2014). Globally generated vector bundles of rank 2 on a smooth quadric threefold. MathSciNet,. - Times Cited Web of Science®: 13 - Times Cited Scopus: 15
5	Soares, H. (2013). On the proof of the genus bound for Enriques-Fano threefolds. MathSciNet,, 0?0.
6	Soares, H. (2013). Vector bundles on toric varieties. MathSciNet,, 0?0.
7	Soares, H. (2012). Stability of syzygy bundles. MathSciNet,, 0?0.
8	Soares, H. (2012). Canonical Toric Fano Threefolds. MathSciNet,, 0?0.
9	Soares, H. (2011). Desingularization and singularities of some moduli scheme of sheaves on a surface. MathSciNet,, 0?0.
10	Soares, H. (2011). Strong generic vanishing and a higher-dimensional Castelnuovo-de Franchis inequality. MathSciNet,, 0?0.

Academic Management Positions

Membro (2025 - 2027)
Unit/Area: Comissão Permanente do Conselho Pedagógico

Membro (Docente) (2025 - 2027)
Unit/Area: Plenário do Conselho Pedagógico

Membro (Docente) (2023 - 2025)
Unit/Area: Plenário do Conselho Pedagógico

Membro (2023 - 2025)
Unit/Area: Comissão Permanente do Conselho Pedagógico

Membro (2023 - 2025)
Unit/Area: Comissão Permanente do Conselho Pedagógico

Membro (Docente) (2021 - 2025)
Unit/Area: Comissão Científica

Membro (Docente) (2021 - 2025)
Unit/Area: Plenário da Comissão Científica

Membro (Docente) (2017 - 2021)
Unit/Area: Plenário da Comissão Científica

Membro (Docente) (2017 - 2021)
Unit/Area: Comissão Científica