

Iana Atanassova

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Director of Centre de Recherches Interdisciplinaires et Transculturelles
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Institut Universitaire de France (IUF), France

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CV HAL <https://cv.hal.science/iana-atanassova>



CURRENT POSITION

ASSISTANT PROFESSOR Since 09/2014
Université de Franche-Comté, Besançon, France
Centre de Recherches Interdisciplinaires et Transculturelles (CRIT)

JUNIOR MEMBER Since 09/2021
Institut Universitaire de France (IUF)
<https://www.iufrance.fr/les-membres-de-liuf/membre/2288-iana-atanassova.html>

DIRECTOR Since 11/2023
Centre de Recherches Interdisciplinaires et Transculturelles (CRIT)
<https://crit.univ-fcomte.fr/>

RESEARCH TOPICS

My research is in the field of **Natural Language Processing (NLP)** and more specifically **full-text processing of scientific papers**. It is part of the research theme "Languages, Knowledge and Discourse" at the CRIT laboratory, with the development of linguistic approaches in NLP for the analysis of scientific discourse. I study the problems of **semantic annotation, ontology population, linguistic modelling and information extraction from scientific texts**. I have used NLP methods to process scientific corpora for building applications in bibliometrics and recommender systems. I have also participated in projects on text mining for competitive intelligence and personal data identification and representation.

My **recent research projects** focus on the study of the rhetorical structure of articles, and in particular the **expression of uncertainty** as part of the process of constructing new scientific knowledge (e.g. the ANR InSciM project).

RESEARCH PROJECTS

PRINCIPAL INVESTIGATOR (PI) AND SUPERVISOR

PI, project InSciM - "Modelling Uncertainty in Science" 2021–2025
funded by French ANR JCJC grant, ANR-21-CE38-0003-01 (270K euros). <https://project-inscim.github.io/>

SUPERVISOR, project EMONTAL 2020–2024
"Extraction and Ontology Modeling of Subjects and Places for the Exploitation of the Documentary Funds of Bourgogne Franche-Comté" : supervision of a PhD thesis, funded by Région Bourgogne Franche-Comté.
<http://tesniere.univ-fcomte.fr/projet-emontal/>

SUPERVISOR, project "Researcher-entrepreneur" ICE 2023–2024
"Applications of NLP for the construction of tools for language teaching" : supervision of a post-doctoral fellow (Dr François-C. Rey), funded by Université de Bourgogne Franche-Comté, France, with the objective of technology transfer to a start-up.

SUPERVISOR, Project "Automatic correction of text responses to exams" 2021–2023
Collaboration and technology transfer to the start-up e-Cole, funded by Technopole de la Réunion.

PI, project DecRIPT - "Detection of the Representations of Personal Data in Texts". <http://tesniere.univ-fcomte.fr/projet-decrypt/> 2019–2023

funded by Interreg France-Switzerland 2014-2020 (307K euros) and Communauté du Savoir (9K euros).

- Academic partners : HEG (Switzerland), HEG Arc (Switzerland)

- Private partners : ERDIL (France), Global Data Excellence (Switzerland)

- Objectives : Building tools for the reliable processing of personal data in texts to facilitate compliance with GDPR.

SUPERVISOR, project "Researcher-entrepreneur" ICE 2016–2021
"Linguistic analysis and automatic extraction of semantic relations in Arabic" : supervision of a PhD thesis and a post-doctoral fellow (Dr Youcef Morsi), funded by Université de Bourgogne Franche-Comté, France, with the objective of technology transfer to a start-up.

PARTICIPATION IN PROJECTS

PARTICIPANT, project "Epistemic concepts in the practice of science" 2024–2027
funded by CRSH, Canada, PI Pr. Christophe Malaterre

PARTICIPANT, project TheoScit 2020–2024
funded by French ANR JCJC grant, PI Dr Marc Bertin, ANR-20-CE38-0003

PARTICIPANT, project SEO-ELP "Search Engine Optimization e-Learning Platform" 2018–2025
funded by Université de Franche-Comté, France. <https://seo-elp.fr/>

PARTICIPANT, project WebSO+ : Competitive Intelligence Platform 2016–2018
funded by Interreg France-Switzerland 2014-2020. Development of a platform for strategic technological and competitive intelligence and e-reputation integrating semantic processing, text classification and sentiment analysis. <http://tesniere.univ-fcomte.fr/projet-webso/index.html>

PARTICIPANT, project SARS : "System for assisted scientific writing in the biomedical domain" 2015–2017
funded by Région Franche-Comté, France. Development of tools for scientific writing using lexical databases and Information Retrieval.

POST-DOCTORAL SUPERVISION

DR NICOLAS GUTERHLÉ, as part of ANR InSciM project 07/2024–12/2025

DR FRANÇOIS-C. REY, PostDoc researcher-entrepreneur	09/2023–08/2024
DR ABDOULAYE GUISSÉ, as part of DecRIPT project	01/2021–05/2021
DR YOUCEF MORSI, PostDoc researcher-entrepreneur	09/2020–08/2021
DR FRANÇOIS-C. REY, as part of DecRIPT project	01/2020–12/2020

PHD THESIS SUPERVISION

PANGGIH KUSUMA NINGRUM "Modelling the expression of uncertainty in scientific articles", funded by project ANR InSciM	2022–
NICOLAS GUTERHLÉ "Extraction and ontological modelling of actors and places for the exploitation of the documentary funds of the Bourgogne Franche-Comté Region", Project EMONTAL, funded by Bourgogne Franche-Comté Region	2020–2024
SALAH YAHIAOUI "Information extraction of spatio-temporal data from scientific texts", funded by French Ministry for Education and Research	2019–2023
YOUCEF MORSI "Linguistic Analysis and Automatic Information Extraction of Semantic Relations in Arabic", funded by project researcher-entrepreneur	2016–2020
FRANÇOIS-C. REY "Ontology of uncertainty and semantic annotation of a corpus dealing with climate change", co-directed with Dr Marc Bertin, University Lyon-1, France	2016–2022

MSC THESIS SUPERVISION

Non-exhaustive list. MSc theses prepared during 2 years and defended as part of the Master's degree of Natural Language Processing of Université de Franche-Comté, Besançon, France.

L. RODRIGUES DE ALMEIDA, J. TADEI, M. POTIER, M. MATHIE, CH. MENSCH	2024
B. FERNANDES DE BRITO, S. POPOVIC, J. YANG, S. YACOUBI	2023
E. BOFFETTI	2022
J. BACCHIOCCHI, C.-T. KUO, M.A. NGUYEN THI	2021
R. HASNAOUI, J. BERGOEND	2020
S. YAHIAOUI, A. CALATAYUD	2019
N. GUTERHLÉ, C. EL CADI, I. HATIRA, L. ANNEBI	2018
L. LOGRADA, F.-C. REY, M. DELHOTAL, Y. MORSI	2016

PARTICIPATION IN PHD THESIS JURYS

As external examiner :

PAVEL SAVOV, "Measuring the Novelty of Scientific Papers" 2021
 Polish-Japanese Academy of Information Technology, Poland

MILOUD ROUABHI, "Analyse sémantico-cognitive de prépositions en vue d'un traitement automatique" 2019
 Paris-Sorbonne (Paris 4) University, France

DRAHOMIRA HERRMANNOVA, "Mining Scholarly Publications for Research Evaluation" 2018
 Knowledge Media institute, The Open University, United Kingdom

DORY SINGH, "Extraction des relations de causalité dans les textes économiques par la méthode de l'exploration contextuelle" 2017
 Paris-Sorbonne (Paris 4) University, France

PARTICIPATION IN PHD THESIS SUPERVISION COMMITTEES

Non-exhaustive list.

LÉO ANNEBI (2021–2024); AHMED ALUSTATH (2020); DHEKRA NAJAR (2018); HONG LIANG (2017)

SERVICE

RESPONSIBILITIES

DIRECTOR OF THE CRIT LABORATORY 11/2023–
 Centre de Recherches Interdisciplinaires et Transculturelles (CRIT), Université de Franche-Comté, France.

CO-DIRECTOR OF THE CRIT LABORATORY 09/2022–10/2023
 CRIT, Université de Franche-Comté, France.

REFERENT FOR OPEN SCIENCE 09/2021–
 CRIT, Université de Franche-Comté, France.

MANAGER OF THE DEPARTMENT OF NATURAL LANGUAGE PROCESSING 09/2020–
 Université de Franche-Comté, France.

COURSE MANAGEMENT

COURSE MANAGER OF THE SPECIALTY "*Natural Language Processing (NLP)*" 09/2017–
 Master of Science "Languages and Foreign Cultures (LLCER)", Université de Franche-Comté, France.

ISO/AFNOR COMMISSION

MEMBER OF ISO/TC 37/SC 4 "LANGUAGE RESOURCE MANAGEMENT" 06/2022–
 WG 2 "Semantic annotation".

MEMBER OF WORK GROUP AFNOR/X03A, ISO/TC 37/SC 4 09/2014–
 Terminology principles and coordination. National referent for ISO 24617 "Semantic Annotation Framework".

<https://norminfo.afnor.org/membre/atanassova-iana797933>

ORGANISATION OF WORKSHOPS AND SCIENTIFIC EVENTS

WORKSHOP CLBIB "Mining Scientific Papers : Computational Linguistics and Bibliometrics" China, 2017
16th International Conference on Scientometrics and Informetrics (ISSI), Wuhan.
<https://easychair.org/cfp/CLBib2017>

WORKSHOP "TRAITEMENT AUTOMATIQUE DES LANGUES SLAVES (TASLA)" France, 2015
Conference TALN 2015, France. <http://tesniere.univ-fcomte.fr/tasla/>

WORKSHOP CLBIB "Mining Scientific Papers : Computational Linguistics and Bibliometrics" Turkey, 2015
15th International Society of Scientometrics and Informetrics Conference (ISSI), Istanbul.

WORKSHOP "Analyses logométriques des revues québécoises : traitements et visualisations" Canada, 2015
Colloque "Relire les revues québécoises : histoires, formes et pratiques", Montréal, Canada.

ADVISORY BOARDS

MEMBER OF THE ADVISORY BOARD OF THE ECLATS JOURNAL 2020–
published by doctoral candidates of LECLA Doctoral School, France. <https://preo.u-bourgogne.fr/eclats/>

MEMBER OF THE ADVISORY BOARD OF THE SIPS PLATFORM "*Information System in Philosophy of Science*"
2019–
Université de Franche-Comté, France. <https://sips.univ-fcomte.fr/>

MEMBER OF THE ADVISORY BOARD OF THE "*Natural Language Processing*" SERIES 2018–
John Benjamins publishing. <https://benjamins.com/catalog/nlp>.

ELECTED MEMBER OF THE ADVISORY BOARD OF THE DOCTORAL SCHOOL LECLA 2016–
Université de Bourgogne Franche-Comté (UBFC), France. <https://lecla.ubfc.fr/>

EVALUATION PANELS

MEMBER OF THE ANR AAPG EVALUATION PANEL 2023
CE10 – Industry and factory of the future : People, organisations, technologies, France.

REVIEWER FOR THE NSERC DISCOVERY GRANTS 2023
Natural Sciences and Engineering Research Council of Canada (NSERC), Computer Science (EG 1507) /
CRSNG, Canada.

EVALUATOR FOR JOHN R. EVANS LEADERS FUND 2020
Canada Foundation for Innovation, Canada.

EVALUATOR FOR THE ANRT CIFRE DOCTORAL GRANTS 2015
ANRT, France.

EDITORIAL WORK

EDITOR OF A SPECIAL ISSUE 2022
"Languages Analysis, Comparison and Generation - Systems, Models and Applications. Homage to Peter Greenfield" in Bulag No 40, ISBN 978-2-84867-948-8. S. Cardey, F.-C. Rey, I. Atanassova (eds.)
<https://pufc.univ-fcomte.fr/bulag-40.html>

EDITOR OF A RESEARCH TOPIC 2022
"Mining Scientific Papers, Volume II : Knowledge Discovery and Data Exploitation" in "Frontiers in Research Metrics and Analytics". Editorial doi : 10.3389/frma.2022.911070.
<https://www.frontiersin.org/research-topics/13388/mining-scientific-papers-volume-ii-knowledge-discovery-and-data-exploitation>

EDITOR OF A RESEARCH TOPIC 2019
"Mining Scientific Papers : NLP-enhanced Bibliometrics" in "Frontiers in Research Metrics and Analytics".
Editorial doi : 10.3389/frma.2022.911070.
<https://www.frontiersin.org/research-topics/7043/mining-scientific-papers-nlp-enhanced-bibliometrics>

REVIEWS AND PROGRAMME COMMITTEES

Non-exhaustive list.

REVIEWER FOR INTERNATIONAL JOURNALS :

- Traitement Automatique des Langues (TAL) : 2024 (2)
- Scientometrics : 2023, 2022 (2), 2019 (3), 2018 (6), 2017 (3)
- International Journal on Digital Libraries (IJDL) : 2023, 2021, 2016
- Quantitative Science Studies (QSS) : 2020
- Journal of Infometrics : 2017 (3), 2016, 2015
- Aslib Journal of Information Management : 2016
- Nature Machine Intelligence : 2020
- Journal of Natural Language Engineering (JNLE) : 2024, 2019
- Revue Ingénierie des Systèmes d'Information, numéro spécial (ISI) : 2017
- Computational Intelligence : 2016

MEMBER OF THE PROGRAMME COMMITTEES OF INTERNATIONAL WORKSHOPS AND CONFERENCES :

- International Symposium Interdisciplinary approaches to phraseological units (PUs) in world languages : Linguistics - NLP & AI - Translation - Literature : 2025 (<https://aiup.sciencesconf.org>)
- Annual International Conference of the Institute for Bulgarian Language (ConfIBL) : 2024, 2023, 2022, 2020
- Extraction and Evaluation of Knowledge Entities from Scientific Documents (EEKE) at JCDL : 2023
- Joint Conference on Digital Libraries (JCDL) : 2023, 2022
- International Conference on Computational Linguistics (COLING) : 2022
- Bibliometrics and Information Retrieval (BIR) : 2024, 2023, 2021, 2020, 2019, 2018, 2017, 2016, 2014
- Bibliometric-enhanced Information Retrieval and NLP for Digital Libraries (BIRNDL) : 2019, 2018, 2017, 2016
- Workshop On Mining Scientific Publications (WOSP) at LREC : 2020, 2018, 2017
- Workshop on Natural Language Processing for Digital Humanities (NLP4DH) : 2022, 2021
- Recent Advances in Natural Language Processing (RANLP) : 2021, 2017

- The International Florida Artificial Intelligence Research Society Conference (FLAIRS) : 2023, 2022, 2021, 2020, 2019, 2015–2017
- The American Association for the Advancement of Science (AAAS) 2015 Annual Meeting
- The International ACM Conference on Management of computational and collective intelligence in Digital EcoSystems (MEDES) : 2016, 2015, 2014
- International Conference on Computational Collective Intelligence (ICCCI) : 2022, 2021, 2020
- Conférence sur le Traitement Automatique des Langues Naturelles (JEP-TALN-RECITAL) : 2020
- Workshop on Scholarly Web Mining (SWM) : 2017
- Workshop on Scholarly Document Processing (SDP) : 2021, 2020
- Electronic lexicography in the 21st century (eLex) : 2017
- Computational Linguistics in Bulgaria (CLIB) : 2024, 2022, 2020, 2018
- Workshop on AI + Informetrics (AII) : 2021
- 4th International Workshop on Detection, Representation, and Exploitation of Events in the Semantic Web (DeRiVE) : 2015

ASSOCIATIONS AND SOCIETIES

ISSI (INTERNATIONAL SOCIETY OF SCIENTOMETRICS AND INFOMETRICS)	Member since 2023
ATALA (ASSOCIATION POUR LE TRAITEMENT AUTOMATIQUE DES LANGUES)	Member since 2014

GRANTS AND PRIZES

IUF (INSTITUT UNIVERSITAIRE DE FRANCE) RESEARCH GRANT, JUNIOR MEMBER, France	2021–2026
GRANT FOR DOCTORAL SUPERVISION AND RESEARCH (PEDR), France	2019–2021
FIRST PRIZE OF THE INOVHACKTION HACKATHON	2017
Organised by the Air Force France on the Intelligent analysis of documents. http://actu.univ-fcomte.fr/article/le-traitement-automatique-des-langues-seduit-larmee-005704	
NOMINATION	2016
Annual International Society for Scientometrics and Infometrics (ISSI) Paper of the year award : Marc Bertin, Iana Atanassova, Vincent Larivière, and Yves Gingras. The Invariant Distribution of References in Scientific Papers. JASIST, 2016.	

SCIENCE DISSEMINATION

SCIENCE MAP "THE COGNITIVE CONTEXT OF CITATIONS"	2014
In the <i>Places & Spaces 10th iteration : The Future of Science Mapping</i> exhibit. https://scimaps.org/map/10/6	
ORGANISER OF THE TEDONNÉES WORKSHOP SERIES FOR THE GENERAL PUBLIC	
The TEDonnées (http://tesniere.univ-fcomte.fr/tedonnees/tedonnees2024/ , "Emerging Data Processing Tools") workshops, Besançon, France, aim to promote interactions between students, researchers and firms in the field of NLP, and to inform the general public. Several editions were organised on the following topics :	
— 2017, Data mining and e-reputation	

- 2018, Smart cities and language technologies
- 2022, Fake News and credibility of the public information
- 2024, Exchanging and innovating : SSH at the horizon of digital technology

ARTICLES AND INTERVIEWS :

- 2024, "*Donner un nouveau sens aux documents historiques*", En Direct, Université de Franche-Comté, No. 312. <https://endirect.univ-fcomte.fr/publication/patrimoine-ecritdonner-un-nouveau-sens-aux-documents-historiques/>
- 2018, "*Le traitement automatique des langues séduit l'armée*", En Direct, Université de Franche-Comté, No 274. <https://endirect.univ-fcomte.fr/publication/le-traitement-automatique-des-langues-sduit-larme/>
- 2017, TDM Stories "The structure of papers", OpenMinTeD Interview <http://openminded.eu/tdm-stories-structure-papers/>
- 2016, "*Au commencement était le verbe*", En Direct, Université de Franche-Comté, No. 266 <https://endirect.univ-fcomte.fr/publication/dompter-le-big-data/#commencement>

PARTICIPATION AT SCIENCE DISSEMINATION EVENTS :

- 2024, "*La science : des certitudes ou des hypothèses ?*", Presenting the project ANR InSciM, Fête de la Science, Besançon, France. <https://bit.ly/InSciM-diffusion1>

TEACHING ACTIVITY

Non-exhaustive list.

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|--|-------------|
| IN MSC SPECIALTY NLP IN "LANGUAGES AND FOREIGN CULTURES" (LLCER)
Université de Franche-Comté (UFC), Besançon, France
Courses (lectures & tutorial classes) : Methodology in NLP, Methods in Machine learning, Research methodology. | 2024– |
| IN MSC SPECIALTY NLP IN "LANGUAGES AND FOREIGN CULTURES" (LLCER)
Université de Franche-Comté (UFC), Besançon, France
Courses (lectures & tutorial classes) : Methodology in NLP, Computer Programming for NLP, Information extraction and IR, Etymology, Cognitive Methods and ML, Software engineering for NLP. | 2014–2024 |
| IN MSC "LANGUAGES AND FOREIGN CULTURES" (LLCER), ALL SPECIALTIES
Université de Franche-Comté (UFC), Besançon, France
Courses (lectures & tutorial classes) : Collaborative work and project management, Information Retrieval | 2014–2024 |
| IN BSC "LANGUAGES AND FOREIGN CULTURES", SPECIALTY NLP
Université de Franche-Comté (UFC), Besançon, France
Courses (lectures & tutorial classes) : Computational Linguistics, Formal linguistics and informatics, Introduction to computer programming for NLP. | 2014–2019 |
| IN URFIST DE LYON, France
Courses : "Introduction to scientific writing with L ^A T _E X" | 2019 & 2020 |
| IN MSC " <i>French Language and Applications</i> "
Université Paris-Sorbonne, Paris, France. | 2011–2012 |

Course : "Introduction to Informatics and Natural Language Processing" (lectures & tutorial classes).

IN BSC "*French Language and Informatics*" 2009–2011
Université Paris-Sorbonne, Paris, France.

Courses : "Logics and Introduction to Informatics" (tutorial classes); "General Mathematics and Analysis - 1" (lectures & tutorial classes); "Preparation for the Certificate of Informatics and Internet (C2i) - level 1" (lectures & tutorial classes).

IN MSC "*Informatics and Language Engineering for Information Management*" 2009–2011
Université Paris-Sorbonne, Paris, France.

Courses : "Methodology and scientific reasoning" (tutorial classes).

IN MSC "*Philosophy and Sociology*" 2006–2009
Université Paris-Sorbonne, Paris, France.

Courses : "Informatic tools" (tutorial classes).

WORK EXPERIENCE

INTERNATIONAL MOBILITY ERASMUS+ STA, University of Wolverhampton, UK 02/2017
Research and teaching stay at the Research Institute in Information and Language Processing (RIILP), Research Group in Computational Linguistics

POST-DOCTORAL FELLOW, Concordia University, Montréal, Canada 01/2014–08/2014
Semantic processing of corpora in humanities and social sciences, under the direction of Prof. Jean-Philippe Warren.

RESEARCH AND DEVELOPMENT MANAGER, MyScienceWork, France/Luxembourg 03/2012–06/2013
Implementation of a search engine for scientific papers for the MyScienceWork social network.

TEACHING AND RESEARCH ASSISTANT (ATER) 09/2009–08/2011
Université Paris-Sorbonne, Institut des Sciences Humaines Appliquées, Paris, France.

EDUCATION

HABILITATION TO DIRECT RESEARCH (HDR) 12/2015
Specialty "Natural Language Processing", Université de Franche-Comté, Besançon, France.

Title : "*Qualitative and quantitative analysis of scientific discourse. Applications to Information Extraction, Information Retrieval and the Semantic Web*"

Supervisor : Pr. Sylviane Cardey (University of Franche-Comté, France)

Jury : Pr. R. Mitkov (University of Wolverhampton, UK); Pr. Ch. Roche (Université de Savoie, France); Pr. B. K. Bogacki (Université de Varsovie, Pologne); Pr. L. Da Sylva (Université de Montréal, Canada); Pr. J.-P. Desclés (Paris-Sorbonne University, France); Pr. P. Pognan (INALCO, France).

PHD IN "MATHEMATICS, INFORMATICS AND APPLICATIONS TO HUMAN SCIENCES" 01/2012
Université Paris-Sorbonne, Faculté des Lettres, laboratoire LaLIC-STIH, Paris, France.

Title : "*Exploiting semantic annotations for information retrieval and text navigation*"

Supervisor : Pr. J.-P. Desclés (Paris-Sorbonne University, Paris, France)

Jury : Pr. Th. Poibeau (CNRS, LaTTiCe, France); Pr. M. Hassoun (ENSSIB, France); Dr. Ch. Harbulot (EGE,

France); Dr. B. Djioua (STIH, Paris-Sorbonne, France).

MSC "INFORMATION AND COMMUNICATION" 2005–2006

Université Paris-Sorbonne, Faculté des Lettres, Paris, France.

MSc thesis title : *"Semantic annotations of texts in French and in Bulgarian with the Excom engine. Automatic syntheses"*, supervised by Pr. J.-P. Desclés

MSC "COMPUTATIONAL LINGUISTICS", Sofia University, Sofia, Bulgaria 2004–2005

Faculty of Classical and Modern Philology

BSC IN ENGLISH PHILOLOGY, Sofia University, Faculty of Classical and Modern Philology 2002–2005

Sofia, Bulgarie

BSC IN MATHEMATICS, Sofia University, Sofia, Bulgarie 2000–2004

Faculty of Mathematics and Informatics