

The Scientific Publication

Enrico Rubiola
<http://rubiola.org>

Lecture series for PhD Students, Postdoc Fellows, and Young Scientists
Guests are welcome

Webinar available on request

Purposes and Audience

While the popular dictum “publish or perish” should not be taken literally, a wise publication strategy is vital for a researcher. This course aims at teaching how to communicate scientific ideas in journals, but also conferences, books, grant applications, etc. Whether the participant is interested in engineering, physics, mathematics, medicine, biology, chemistry, psychology or archeology, the general problems of the scientific publication are surprisingly similar.

The student familiarizes with the choice of a journal, the organization of a text, the peer-review process, the reasons for acceptance or rejection, the impact factor, and other relevant topics of the scientific communication. Emphasis is given to all the technical aspects the researcher comes across when he/she tries to publish an article.

As ruled by the PhD School of Bourgogne and Franche Comté, this course falls in the category of “humanities,” as opposed to “science” or “toolbox.”

This course is a **must** for **PhD students** and for **Postdoctoral Fellows** of *all disciplines* (engineering, physics, mathematics, chemistry, medicine, biology, psychology, etc. Young colleagues, Master students (chiefly CMI training) and all guests are welcome.

Prerequisites

It is understood that the attendee has the motivation, and that he/she has the appropriate level in English language to attend the lectures (Italian and French can be used in private discussions with the Instructor).

Contents

The peer-review journal. The scientific protocol and the peer-review process. Impact factor, journal “rank,” citations, etc. The weird case of arXiv, Hal, and other repositories. How the full process works, from submission to online/paper print

How to write an article. Choice of the journal/conference, topic matching, and self-evaluation. Organization of an article. Manage weak points. Ethics, plagiarism, self-plagiarism, and other plagues. Citations and references. General rules.

PhD thesis, reports, and books. General organization. Specific issues: front/back matter, index. Figures, proofreading, and other (boring) relevant stuff. How to submit a project.

Copyright. The copyright rules are simple, but essential to protect intellectual property, and to avoid embarrassment/infringement.

Write financial proposals. Science costs a lot of money. Whoever targets a career as an academic or as research and development engineer, has to learn about the funding process.

Very short introduction to the computer programs. Writing: Latex, Word, OpenOffice, etc. Bibliography: Bibtex, Endnote, Zotero. Drawing and sketching. Giving a talk.

Academic careers. Getting in the academic career in France and in a few other Countries. Positions and rank. The selection and hiring process. Etc.

Burden and Schedule

10 hour lectures in 5 sessions, once per week. All details are on the Enrico's home page <http://rubiola.org>. On the left-hand grey area, go to --> Syllabus --> PhD Lectures

Learning Material

The full slideshow is available on the Enrico's home page <http://rubiola.org>, follow the link <http://rubiola.org/pdf-lectures/PhD-Course--Scientific-publication-All-lectures.pdf>

The students can learn a lot from

- *The Chicago Manual of Style*, 16th edition, University of Chicago Press 2010, ISBN 978-0-226-10420-1.
- R. A. Day, B. Gastel, *How to Write & Publish a Scientific Paper*, 7th edition, Cambridge 2012, ISBN 978-1-107-67074-7.
- B. Gustavii, *How to Write and Illustrate a Scientific Paper*, 2nd edition, Cambridge 2008, ISBN 978-0-511-39463-8.
- L. Lamport L, *Latex*, 2nd edition, Addison Wesley 1994, ISBN 978-0-201-52983-8

Guests Attendees

High-school (lycée) Teachers, Research and Development Engineers, Consultants, Practitioners, and Master Students, CMI Students, and other people may be interested in these lectures. Access is open, and guests are welcome. However, **guests have to register** by email to formations.doctorales@univ-fcomte.fr, cc to rubiola@femto-st.fr.

Webinar Access to Lectures

Upon request, all the lectures are transmitted in real time using Adobe Connect, a professional webinar tool. A specific request for webinar participation must be sent by email to formations.doctorales@univ-fcomte.fr, cc to rubiola@femto-st.fr. Notice that the webinar restricted to student who actually need it. People based in Besancon area have to attend regular lectures.

The Instructor

Enrico Rubiola is an internationally recognized scientist in the field of oscillators, frequency stability, noise, and precision instruments. Born in Italy in 1957, he came in France in 2000 as a full professor at the university Henri Poincaré, Nancy, and in 2005 he moved to the University of Franche Comté, Besancon, spending long time in California in the meanwhile. He lectured in several institutions in Italy, France, Germany and USA, and collaborates with high rank institutions like NASA and Max Planck Institute.

Prof. Rubiola has authored or co-authored more than 200 articles in journals, conferences and edited books. He published three books, one of which translated in Chinese, and a fourth is in progress. He serves as a reviewer for a dozen of journals of electrical engineering, physics and optics, and has served as an associate editor for a IEEE journal. A wealth of articles, slides, and open literature is available on the home page <http://rubiola.org>.