



CONFERENCES

EFOMP SCHOOL: Statistics in Medical Physics



23-25 April 2020, Athens, Greece

Endorsed by the European Society for Radiotherapy and Oncology (ESTRO)

Frightened of Statistics?

Do statistics frighten you, or just bore you? Do you find it difficult to understand statisticians? Do you know the difference between a standard error and a standard deviation? Well, as a scientist, statistics are an important part of your professional work; whether you need to use them in the design and analysis of experiments or in interpretation of other people's research.

At the European Congress of Medical Physics 2018, the European Federation of Organisations for Medical Physics (EFOMP) ran a course on statistics that proved very popular. But we recognised that we could only briefly cover the topic in the few hours available. So EFOMP, in collaboration with the Hellenic Association of Medical Physics, has remedied this by announcing a three-day course entitled Statistics in Medical Physics as part of their European School for Medical Physics Experts. The extra time available means that there will be more time for practical sessions with worked examples. The course is endorsed by ESTRO.

What skills will you gain? The school will open with consideration of how to design an experiment and analyse the resulting data, including receiver operating characteristic (ROC) analysis and analysis of variance. The second day will start with multiple linear regression analysis. Survival analysis follows, and the day finishes with talks on statistical methods in radiomics. The final day deals with the treatment of uncertainties in radiation dosimetry and in radiotherapy, covering issues such as quantitative comparison of results from different investigators and comparison of treatment volumes.

The course will finish with an (optional) examination.

As you can see, there is much in the course that is relevant to the work of medical physicists, whether they are working in imaging, therapy or protection. It will also provide a good grounding in the basic principles of statistics.

The course runs from 23 to 25 April 2020 at the National and Kapodistrian University in Athens. Early registration, before 15 March, is €300, which includes coffee breaks, two main meals and a social dinner. Registration is via the EFOMP website: <https://www.efomp.org/index.php?r=events/view&id=97>.

We are not claiming that in three days we can turn you into a statistician, but perhaps we can give you enough understanding to overcome some of your fears.