

Mid Year School on Analysis, Geometry, and Applications (MYSAGA)
Bandung Institute of Technology, Indonesia
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I

Generalized Morrey Spaces

Prof. Yoshihiro Sawano
Tokyo Metropolitan University (Japan)

In 1969, J. Peetre defined a Banach space called Morrey spaces. Theory of Morrey spaces expand so rapidly. Here I aim to generalize the definition of Morrey spaces to various directions.

1. Generalized Morrey spaces.
2. Orlicz Morrey spaces.
3. Generalized Orlicz Morrey spaces of the first and the second kind.

For a couple of days, I will add a detailed proof, while mainly the last two days will be used for survey of this field. I will choose topics so that the audience can understand why these function spaces are useful when we analyze the function spaces.

II

Complex Interpolation of Morrey Spaces

Dr. Denny Ivanal Hakim
Bandung Institute of Technology (Indonesia)

In these lectures we will discuss some results related to complex interpolation of Morrey spaces. The topics of these lectures will include:

1. The Riesz-Thorin interpolation theorem.
2. Interpolation of linear operators in Morrey spaces.
3. Caldern's complex interpolation method.
4. The description of complex interpolation of Morrey spaces.
5. The description of complex interpolation of subspaces of Morrey spaces.

III

Elliptic PDEs and Morrey Spaces

Prof. Giuseppe Di Fazio

University of Catania (Italy)

Elliptic PDE are ubiquitous both in Mathematics and in the applications of Mathematics. The regularity of the generalized solutions is a very important issue that it is necessary to handle in proper way if one want to obtain useful information. The goal of my lectures is to introduce the audience to the problem of regularity for elliptic PDE under assumptions on the coefficients that are of minimal requirements.