

## **New trends of the Gagliardo-Nirenberg inequality**

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### **Abstract**

Classical Sobolev-Gagliardo-Nirenberg inequality is one of the most crucial tools to obtain the existence and regularity of the solution in PDE. The development lasts for almost 100 years now, but additional versions for finer spaces or special cases are still being researched. We introduce the framework of the topic and mention several fresh contributions of the author.