Peetre's Theorem in the locally convex setting

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The classical theorem of Peetre characterizes linear partial differential operators without mentioning derivatives at all. There exist many generalisations of the theorem, extending the statement to nonlinear operators and to infinite dimensional domains and range spaces.

In this talk I will give a survey on different versions of Peetre's theorem in the infinite dimensional setting and present in particular a result of mine dealing with spaces of functions with values in locally convex spaces.