Analysis Seminar

Dilation properties of Orlicz amalgam spaces

By

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Abstract: Let Φ and Ψ be Young functions with the corresponding Orlicz spaces $X=L^\Phi(R^d)$ and $Y=L^\Psi(R^d)$. We study dilation properties of the Orlicz amalgam spaces W(X,Y), where the local and global component spaces are X and Y, respectively. We extend the dilation results in classical amalgam spaces to the Orlicz amalgam space W(X,Y) and recover these results. Moreover, we obtain a sharper estimate than that given for classical amalgam spaces. In addition, we prove that the Zak transform is continuous on W(X,Y). Using it, we give the Amalgam Balian-Low theorem as a special case of Orlicz space results.

Date: Tuesday, November 26, 2024
Time: 14:00-15:00
Place: SA141 - Mathematics Seminar Room