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An intersection representation for anisotropic vector-valued function spaces

In this talk we discuss an intersection representation for a class of anisotropic vector-valued function spaces, which include weighted anisotropic mixed-norm Besov and Triebel-Lizorkin spaces. One application of this result is to the maximal weighted L_q - L_p -regularity problem for parabolic PDEs, where weighted anisotropic mixed-norm Triebel-Lizorkin spaces occur as spaces of boundary data. In the special case of the classical isotropic Triebel-Lizorkin spaces, the intersection representation gives an improvement of the Fubini property.