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Atomic decomposition of a subspace of BMO

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(joint work with DACHUN YANG AND WEN YUAN)

The goal of my talk is to introduce a new decomposition of a subspace of BMO. This is a continuation of what I have been doing for other function spaces. Around 1990, Frazier and Jawerth introduced the technique of obtaining non-smooth atoms from wavelet decomposition. This idea was revisited by Grafakos in his text book Modern Harnomic Analysis. This technique together with the reexamination of the atomic decomposition of Hardy spaces with variable exponents brought out a new technique to decompose functions in other spaces such as Triebel-Lizorkin-Morrey spaces. My talk reports an advancement in this direction.