

## BV spaces, sampling-type operators and approximation methods

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We will present some approximation results in the frame of the spaces of functions of bounded variation in multidimensional asset, by means of the variation in the sense of Tonelli. In particular, we obtain estimates and convergence in variation for some classes of sampling-type operators that have deep relations, from both theoretical and applicative aspects, with Approximation Theory, Signal and Image Processing. The natural geometrical aspects connected to the definition and construction of the Tonelli variation allow us to discuss also some applicative connections of the results to some problems of Digital Image Processing.

### References

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