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Almost-compact and compact embeddings of variable exponent spaces

We give a necessary and sufficient condition for the almost compact embeddings of one variable exponent Lebesgue space into another. We apply such results to characterize compact embeddings of variable exponent Sobolev space into variable exponent Lebesgue spaces.

Keywords: almost-compact embeddings, Banach function spaces, variable Lebesgue spaces, variable Sobolev spaces

2010 Mathematics Subject Classification: 46E30, 26D15

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