

**CONSTRUCTION OF PATHOLOGICAL GÂTEAUX  
DIFFERENTIABLE FUNCTIONS**

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We prove that for many pairs  $(X, Y)$  of classical Banach spaces, there exists a bounded, Lipschitz, Gâteaux-differentiable function from  $X$  to  $Y$  whose derivatives are all far apart.

Joint work with Robert Deville and Milen Ivanov.