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Buhmann, Martin D.; Pinkus, Allan

Identifying linear combinations of ridge functions.

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This paper is about an inverse problem. Let a given function $f(\mathbf{x})$ be some sum of ridge functions of the form $\sum_{i=1}^m g_i(\mathbf{a}^i \cdot \mathbf{x})$. We just know an upper bound on m . We seek to identify the functions g_i and also to identify the directions \mathbf{a}^i from such limited information. Several ways to solve this nonlinear problem are discussed in this work. *Shi Ying-Guang (Beijing)*

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