

# ON THE EXTENSION OF BI-LIPSCHITZ MAPPINGS.

*Zbigniew Jelonek (IMPAN, Poland)*

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Let  $X$  be a closed semialgebraic set of dimension  $k$ . If  $n \geq 2k + 1$ , then there is a bi-Lipschitz and semialgebraic embedding of  $X$  into  $\mathbb{R}^n$ . Moreover, if  $n \geq 2k + 2$ , then this embedding is unique (up to a bi-Lipschitz and semialgebraic homeomorphism of  $\mathbb{R}^n$ ). We also give local and complex algebraic counterparts of these results.