

On mixed cages of girth 6

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A $[z,r;g]$ -mixed cage is a mixed graph of minimum order such that each vertex has z in-arcs, z out-arcs, r edges, and it has girth g . I'll present the most relevant results on the topic, including recent results on my work with Gabriela Araujo-Pardo. In particular, I'll show an infinite family of mixed graphs with girth 6. This construction also provides an upper bound on the minimum order of mixed cages of girth 6. Additionally, we introduce a lower bound on the minimum order for any mixed cage.

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