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## **Motorized girder realignment test in the PETRA III storage ring**

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The system in place for remote alignment of the girders, which carry the storage ring elements of the PETRA III light source in the Max von Laue experimental hall, were never used to perform re-alignments after the initial installation of the storage ring in 2009. Since the planned upgrade, PETRA IV, can benefit from the fine control of the girder position to achieve the design beam performance, a movement test of one of the PETRA III girders was performed in December 2022. The ability to safely and precisely remote control the equipment was demonstrated and the accuracy of the optics model that describes the effect of the girder movement on the orbit could be evaluated. The findings of this experiment are summarized in this paper.

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### **Footnotes**

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Yes

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