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## **Spatiotemporal multiplexing method for visual field of view extension in holographic displays with naked eye observation**

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### **Abstract:**

In this paper we propose a method which allows to overcome the basic functional problems in holographic displays with naked eye observation caused by delivering too small images visible in narrow viewing angles. The solution is based on combining the spatiotemporal multiplexing method with a 4f optical system. It enables to increase an aperture of a holographic display and extend the angular visual field of view. The applicability of the modified display is evidenced by Wigner distribution analysis of holographic imaging with spatiotemporal multiplexing method and by the experiments performed at the display demonstrator.