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Large fractional delay for slow and stored light in atomic vapor IRINA NOVIKOVA, DAVID PHILLIPS, RONALD WALSWORTH, Harvard-Smithsonian — Large fractional delay is important in slow and stored light for many potential applications, from quantum communication to photonics. We have achieved large fractional delay for slow and stored light in Rb vapor using temporally-shaped control fields. Combined with amplification provided by self-rotation, we can produce slow and stored light pulses with large fractional delay and minimal distortion or attenuation.

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