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Alexey Sukhinin* (alexey.sukhinin@ndsu.edu). *Propagation of light in multi-frequency moving focus model*. Preliminary report.

The moving focus model describes the propagation of intense optical pulses under the effect of Kerr nonlinearity. In this work, we study the model extension to the multi-frequency regime. Spatial solitons with mixed topological charges were obtained numerically for various frequencies in both resonant and non-resonant regimes. These results could lead to a better understanding of critical power for multi-color optical collapse and potentially novel types of filament propagation. (Received September 17, 2019)