

Fig. 6. Absolute group delay measurements of a 69.9 cm long few-mode fiber measured using Balanced Spectral Interferometry and Virtual Reference Interferometry

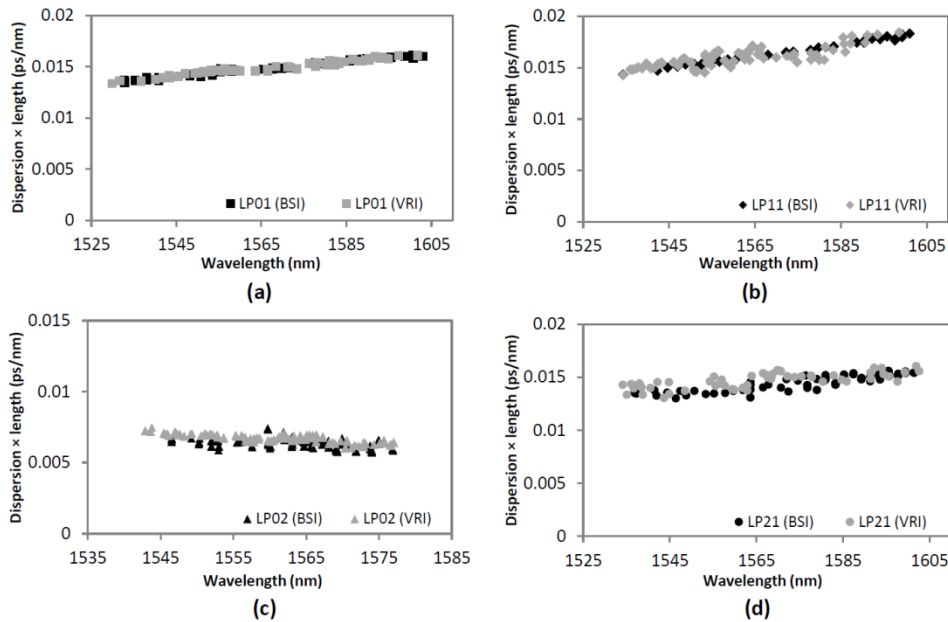


Fig. 7. Comparison of the dispersion  $\times$  length measurements for the (a) LP01 mode, (b) LP11, (c) LP02 mode, and (d) LP21 mode of a 69.9 cm length of few-mode fiber measured via Balanced Spectral Interferometry and Virtual Reference Interferometry.

## 5. Conclusion

We have demonstrated the measurement of first- and second-order dispersion of polarization modes in a Panda PM fiber and transverse modes in an FMF using VRI. The all-fiber experimental setup is simple, convenient and fast and allows sufficiently separated and excited fiber modes to be characterized simultaneously in a single scan.

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