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**Biot-Stoll with squirt flow and shear (BICSQS) model:**  
**high-frequency correction**

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The modeling of the grain to grain shear stiffness within the larger Biot-Stoll plus contact squirt flow and shear (BICSQS) model [N. P. Chotiros and M. J. Isakson, *J. Acoust. Soc. Am.* 116(4), 2011-2022, 2004] assumes Poiseuille flow, which must become invalid at high-frequencies. Specifically, the viscous shear drag term will be unphysically large. A correction is introduced based on Biot's solution for oscillatory flow between two parallel plane boundaries [M. A. Biot, *J. Acoust. Soc. Am.* 28, 179-191, 1956]. Although the original solution was derived for oscillatory fluid flow relative to stationary parallel plane boundaries, it can be readily adapted for oscillatory motion of the boundaries in opposite directions relative to the fluid, as in shear drag at the grain to grain contact. This correction extends the frequency range of the BICSQS model. Theoretical results, with and without the correction, will be compared. Work supported by the Office of Naval Research, Ocean Acoustics.