Conclusions

- Velocity dispersion and attenuation will occur in most poroelastic systems, as one consequence of differences found in Gassmann's quasi-static results and the low frequency results of effective medium theory.
- The canonical functions play a very useful role in this analysis by allowing us to compare and order these results in a simple, logical way: $G_{dr} < G_{sat}^{eff}$.
- The wave propagation theory for poroelastic systems needs to be formulated correctly to account for this source of dispersion.