Supplemental Information

*Cavity Correlation and Bridge Functions at High Density and Near the Critical Point: A Test of Second Order Percus-Yevick Theory*

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Figure S1. The radial distribution function (a), cavity correlation function (b) and bridge function (c) for $T^* = 1.31, \rho^* = 0.460$. 
Figure S2. The radial distribution function (a), cavity correlation function (b) and bridge function (c) for $T^* = 1.4, \rho^* = 0.280$. 
Figure S3. The radial distribution function (a), cavity correlation function (b), bridge function (c) and direct correlation (d) function computed from PY2 for $T^* = 1.31, \rho^* = 0.25$. 