

## **Combining Spectral and Scattering Data to Determine Water Structure**

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I will discuss recent experimental and simulation data of liquid water and the picture of fluctuations between high-density (HDL) and low-density (LDL) liquid this has led to [1,2]. Furthermore, the temperature dependence in the O-O pair-distribution function at intermediate range ( $< 18 \text{ \AA}$ ) has recently been measured with good statistics [3-5], which I will combine with spectroscopic and scattering data and simulations with far-reaching implications for our understanding of structure and dynamics in water.

[1] A. Nilsson and L.G.M. Pettersson, Nature Commun. 6, 8998 (2015).

[2] P. Gallo et al., Chem. Rev. 116, 7463-7500 (2016).

[3] L.B. Skinner et al., J. Chem. Phys. 138, 074506 (2013)

[4] L. B. Skinner et al., J. Chem. Phys. 141, 214507 (2014).

[5] D. Schlesinger et al., J. Chem. Phys. 145, 084503 (2016).