Abstract for an Invited Paper
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Water confined at the nanoscale: insight from first principles calculations

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We will discuss structural, vibrational and electronic properties of water confined between non polar surfaces, as obtained from a series of ab-initio simulations. In particular we consider graphene, carbon nanotubes and hydrogenated diamond surfaces as confining media and we present a discussion of so called hydrophobic interactions, taking into account the details of the interface electronic properties.