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Vortrag: The effect of urban green structures on thermal comfort – Comparing court yards in Potsdam, Germany

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Urban green infrastructure (UGI) is increasingly being promoted as a measure to mitigate urban heat stress caused by the heat island effect and climate change impacts. However, evidence of the effectiveness of UGI to moderate heat stress is mostly lacking. This is a serious challenge for urban planners who have the responsibility of navigating their cities towards a sustainable future while being constrained by financial and spatial factors. In this contribution, we examine the effectiveness of green structures to increase thermal comfort in four courtyards with a similar built environment but varying green structures in Potsdam, Germany. Our poster will present first results from our measurements in 2019 and an outlook to our activities in 2020. We will present significant differences in temperature with lower temperatures in court yards with more green structures and less sealed soil. Our study aims to increase the understanding of the regulating effects of urban green structures as well as their co-benefits, such as thermal comfort, biodiversity and carbon sequestration.