

S20a The nature of Intra-Day Variables and Prospects for VSOP-2

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Over the last ten years, our understanding of the causes of intra-day variability (IDV) has changed from mainly intrinsic causes to mainly scintillation in the interstellar medium. Several spectacular IDV sources have been found, such as J1819+3845, which has shown changes in amplitude of 300% over several hours! Surveys have shown such sources are rare, but that IDV is common. Some sources display presistent IDV, others episodic IDV: in both cases, extremely compact structure must be present in the source, making these sources good targets for VSOP-2. In this presentation, the properties of IDV sources will be reviewed and the science goals of VSOP-2 observations presented.