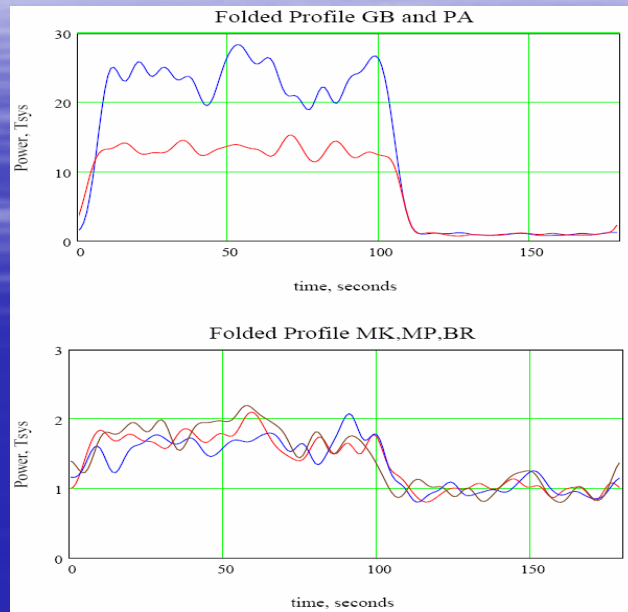


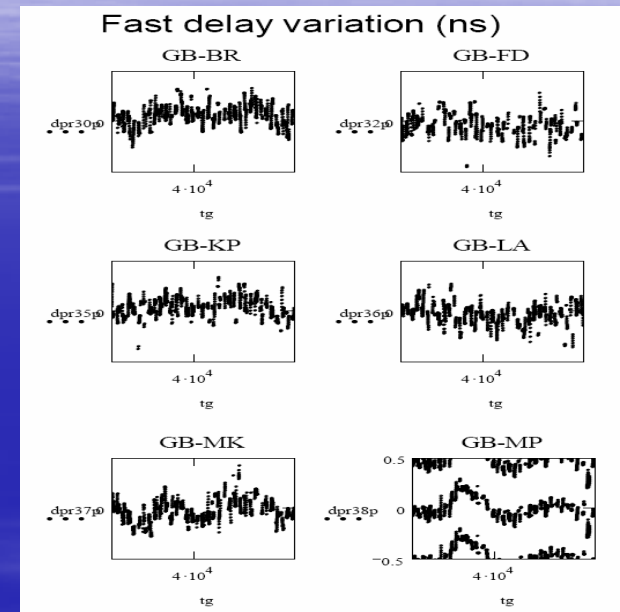
JIVE HUYGENS VLBI TEAM

EXPLORES THE QUANTUM FRONTIERS OF VLBI

Single dish detected power



Fringes on baselines



Stochastic delay noise ~ 20 picoseconds

The Huygens probe signal delay detections are based on cross-correlation
of ~ 20 photons per second collected by 20 -25m antennas
with ~ 500 photons per second collected by GBT

@ $\lambda=15\text{cm}$ and energy flux of 0.1 - 0.3 photon per second per square meter

WE CLAIM IT MAY BE THE MOST SENSITIVE RADIO ASTRONOMICAL DETECTION SO FAR
ON BEHALF OF THE HUYGENS VLBI TEAM, S. POGREBENKO, L. GURVITS, I. AVRUCH, R. CAMPBELL, R. OERLEMANS