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Title: February 2013 pRad RMI experiments

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February 2013 pRad RMI experiments

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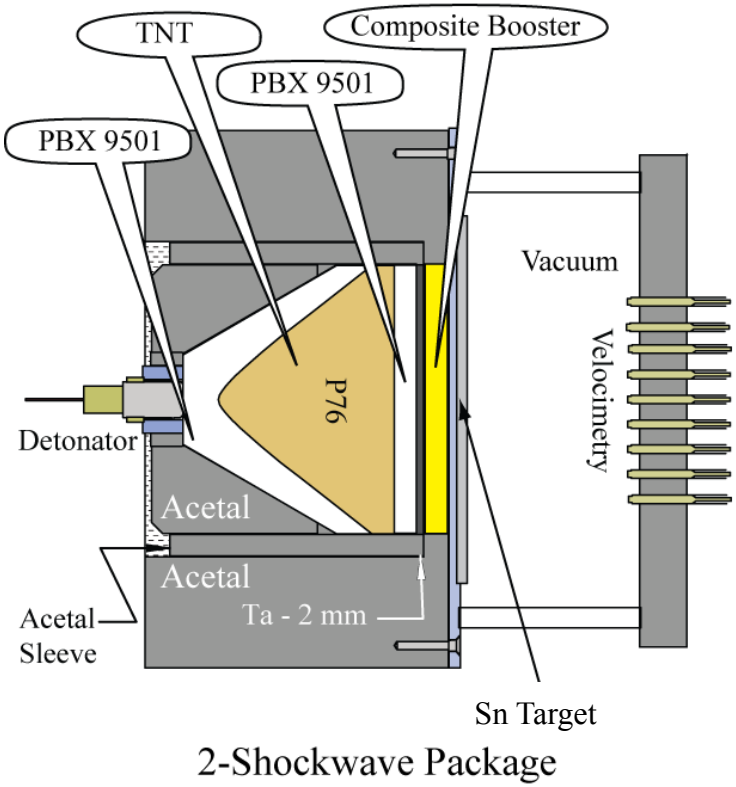
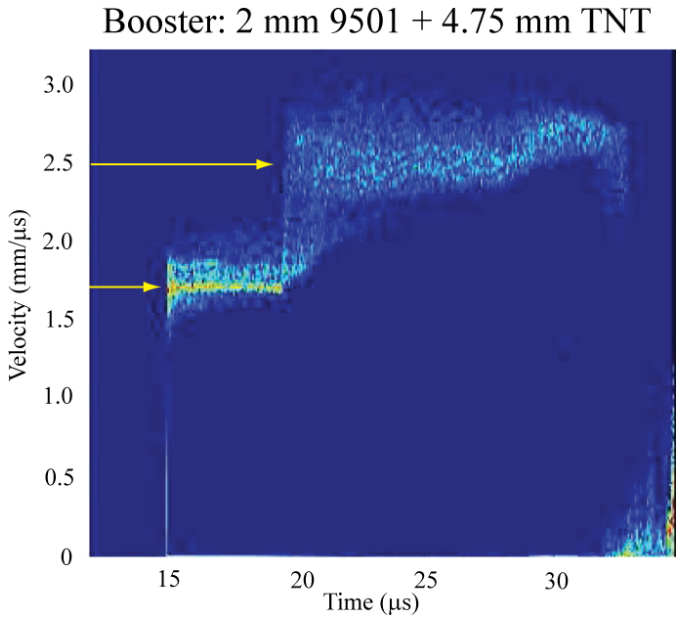
JOWOG 32 MIX

25-27 March 2013

Two-shock driver

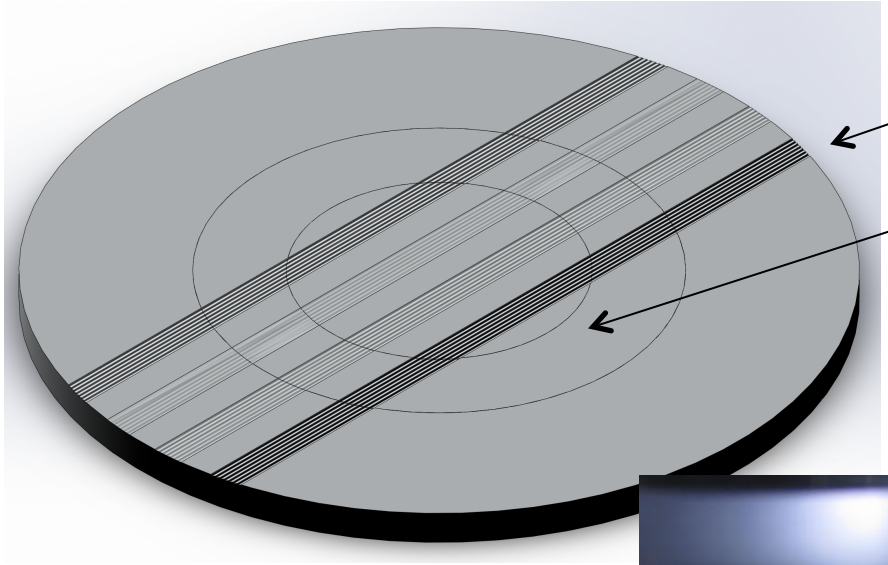


2-Shockwave Package

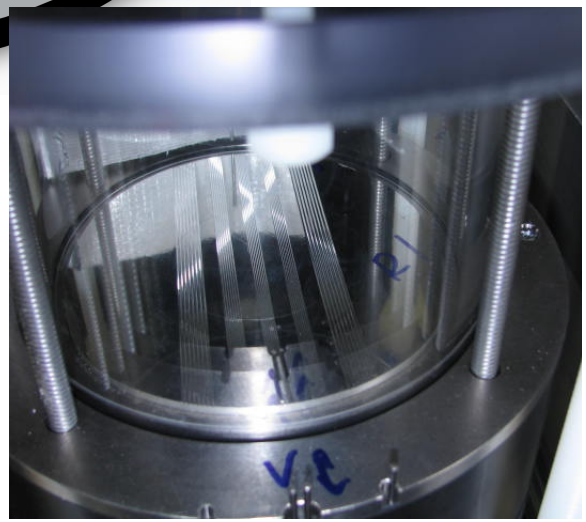


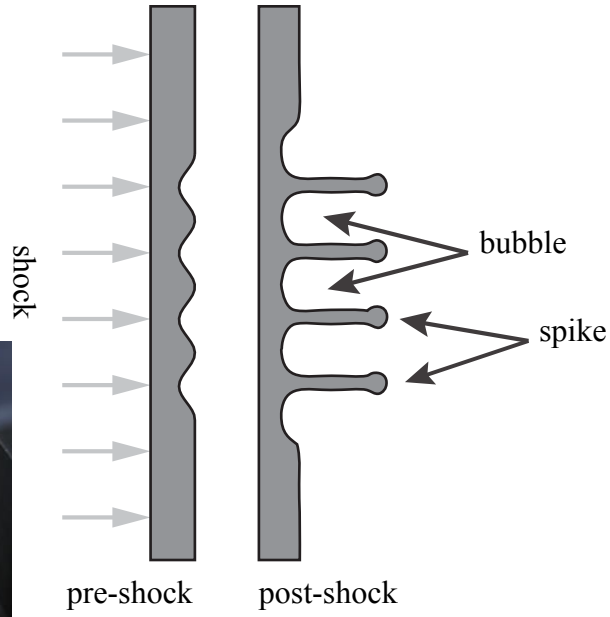
- **"Composite" Booster**
  - 2 mm 9501 + 4.75 mm TNT
    - **23 Gpa**
  - 2nd Shock Jump:
    - ~0.8 mm/μs ~10 GPa

Sn Target

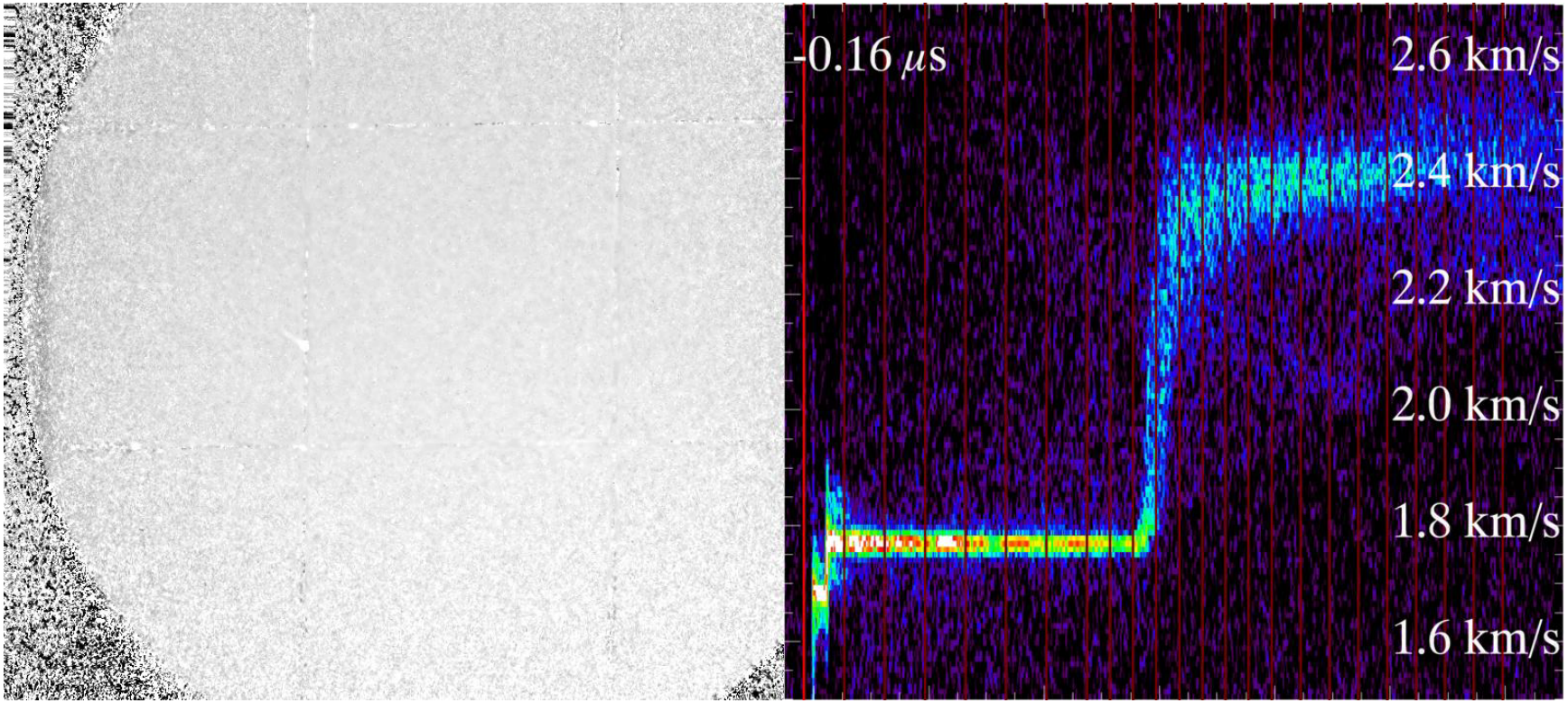


Region	$kh = 2\pi/\lambda * h$	$\lambda = 0.55$ mm, Amplitude (mm)
1	1/2	0.044
2	1/8	0.011
3	1/4	0.022
4	3/4	0.066

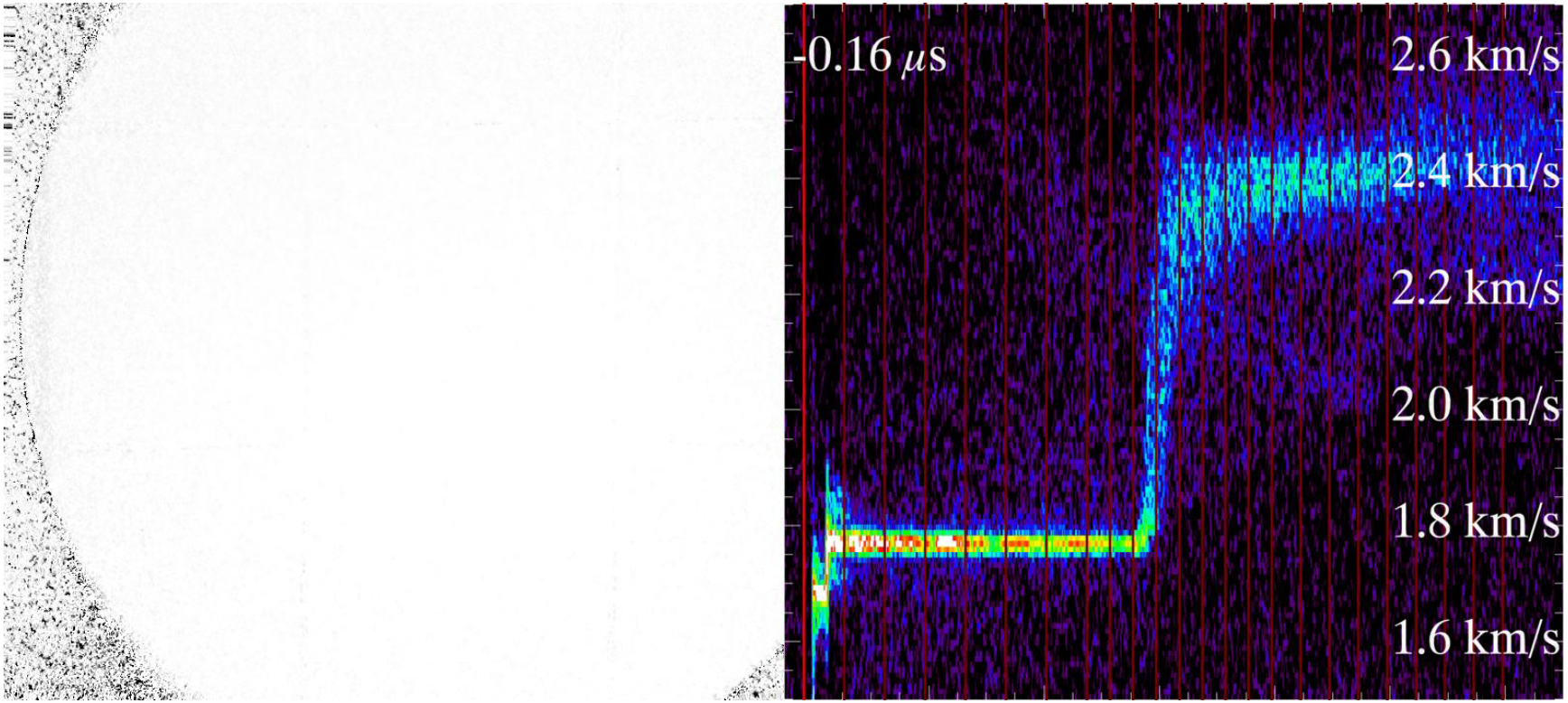




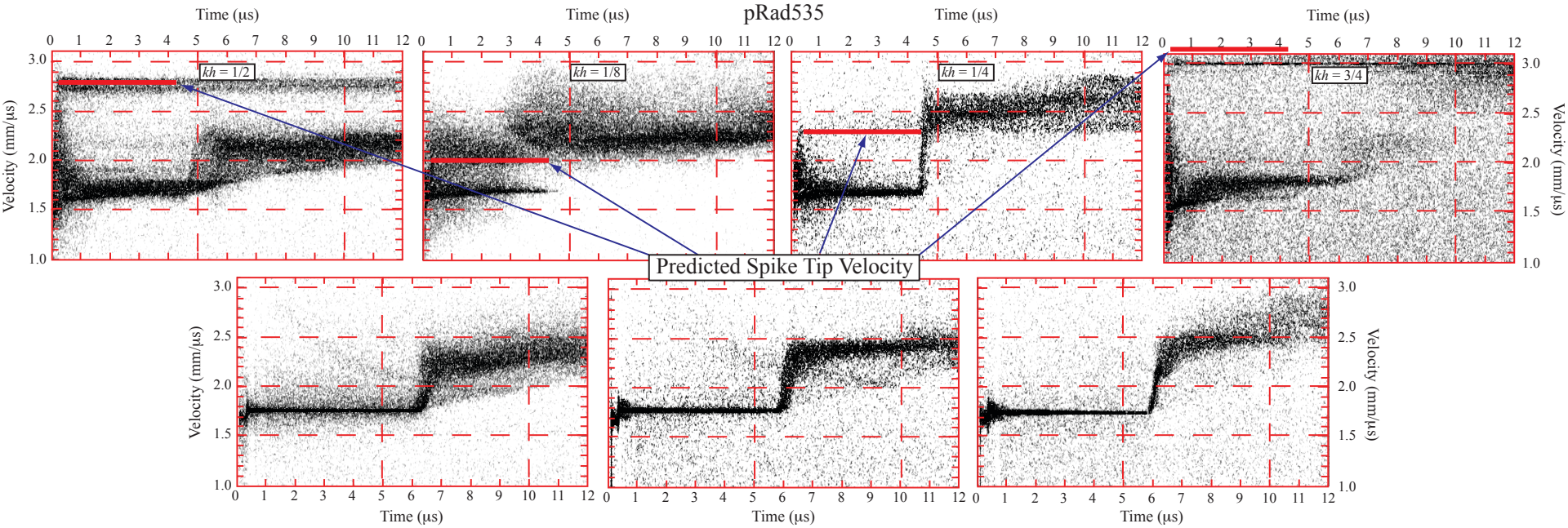
pRad 535 – 2-wave driver, 4 mm Sn Target, Vacuum



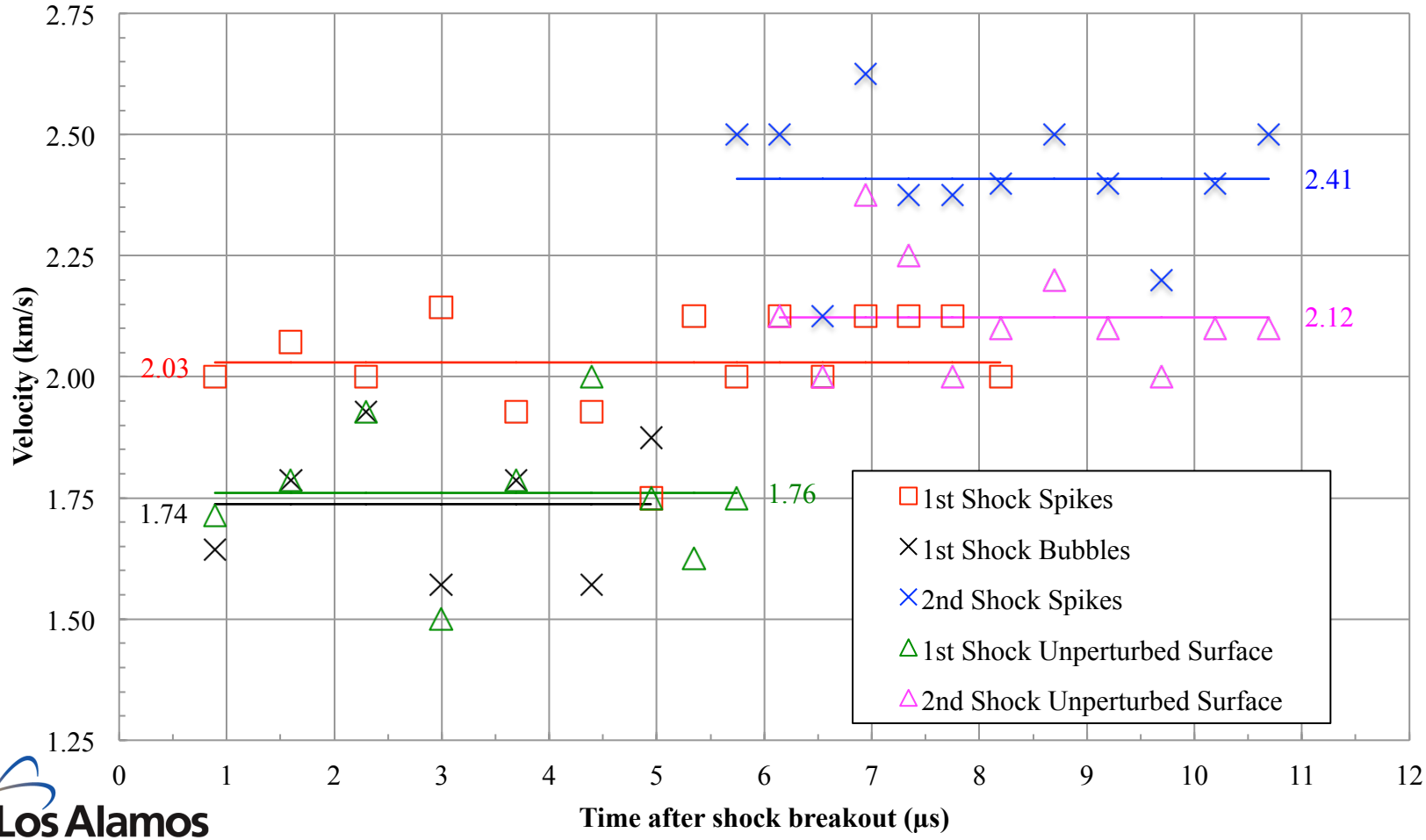
pRad 535 – 2-wave driver, 4 mm Sn Target, Vacuum



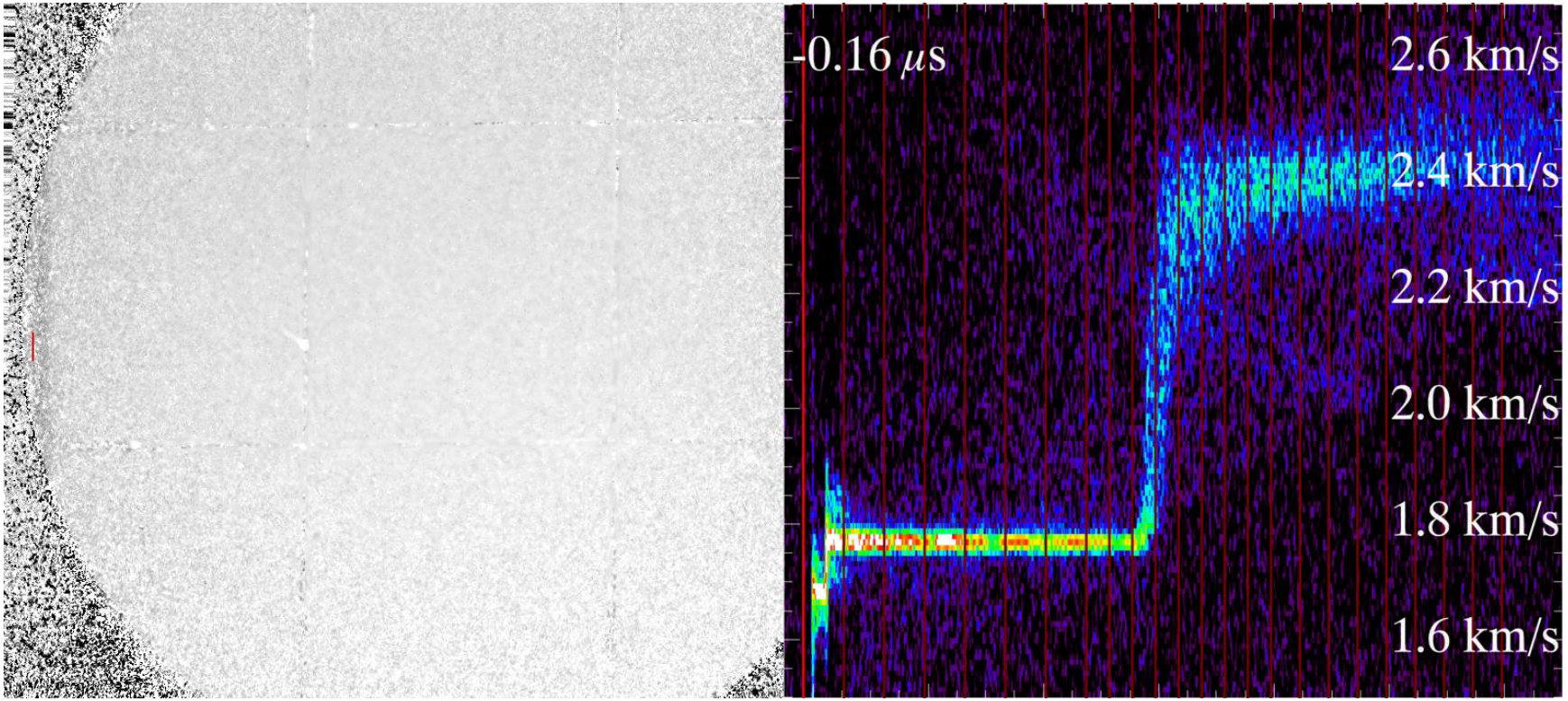
pRad 535 - Velocimetry



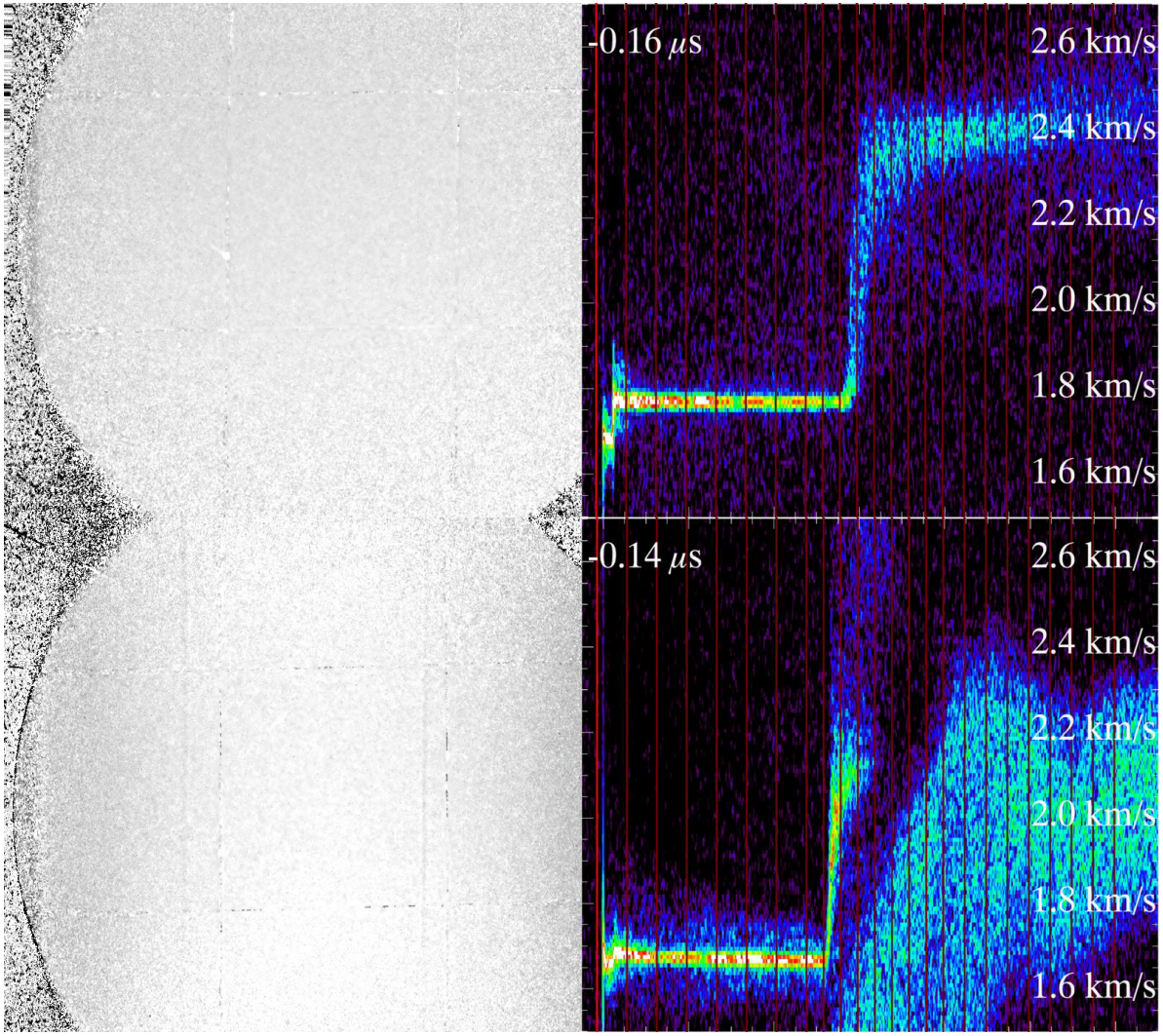
pRad 535 –
Spike, Bubble and Surface Velocity for kh = 1/8



pRad 535 – “Velocimetry Surface”



pRad 535 (vacuum) & pRad 536 (~1 atm Ne)



Conclusions

- **Recent data provide a rich data set for the study of 1st and 2nd shock ejecta production.**
- **Data analysis still in progress:**
  - Detailed measurements of all regions.
  - Analysis of areal / volumetric density reconstructions.
  - Analysis of propagation through gas.
- **Proposed future work:**
  - Larger wavelength, same or smaller kh, fewer regions,
  - Lower initial shock - requires HE development.