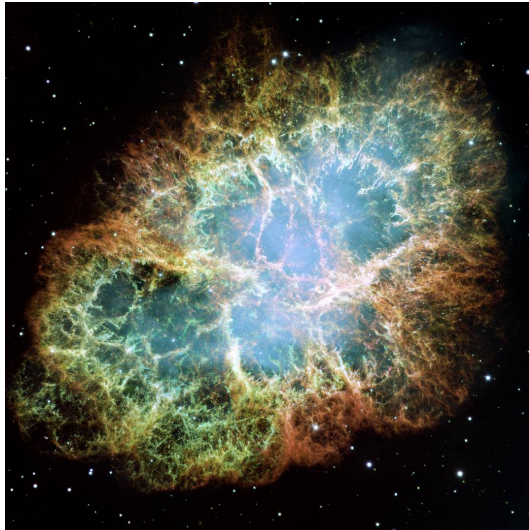
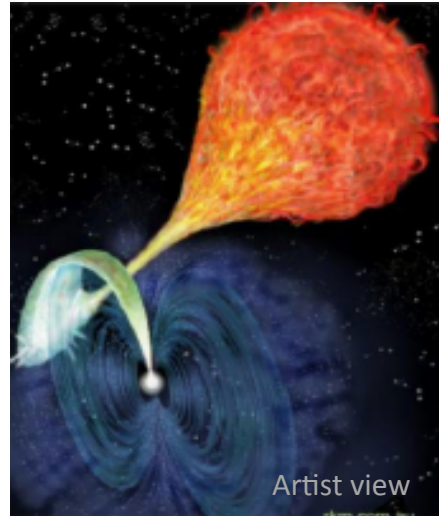


Interaction of a highly radiative shock with a solid obstacle

Th. Michel, M. Koenig, R. Yurchak, C. Michaut, B. Albertazzi, G. Rigon, S. Laffite, E. Falize, L. Van Box Som, Y. Sakawa, T. Sano, H. Shimogawara, R. Kumar, Y. Hara, T. Morita, Y. Kuramitsu, P. Barroso, A. Pelka, G. Gregori, R. Kodama, N. Ozaki, P. Tzeferacos, D. Lamb



The Crab Nebula
NASA, ESA, J. Hester, A. Loll (ASU)



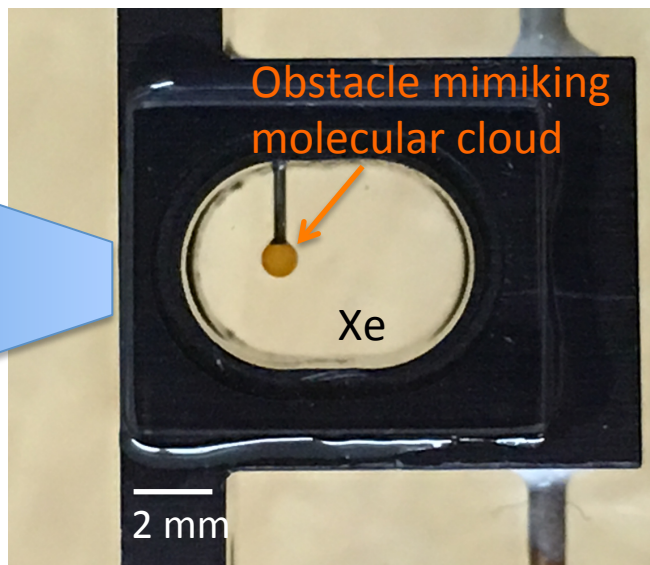
Polar Project
(Falize & AI)



*M16 Pillars of
Creation, J. Hester,
P. Scowen (ASU),
HST, NASA*

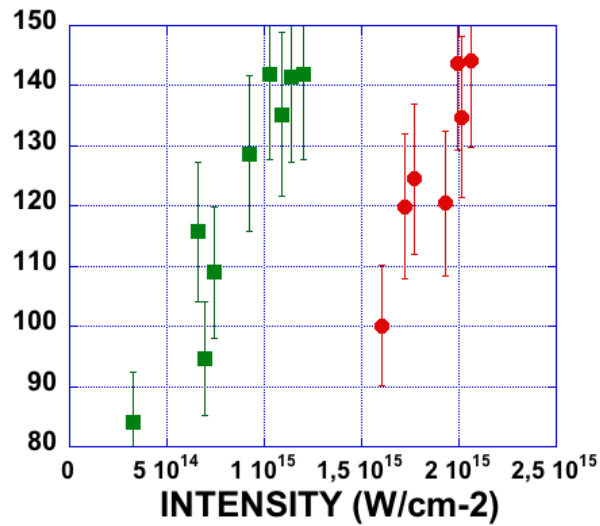
LASER

1 kJ in 500 ps
 $\Phi = 350 \mu\text{m}$



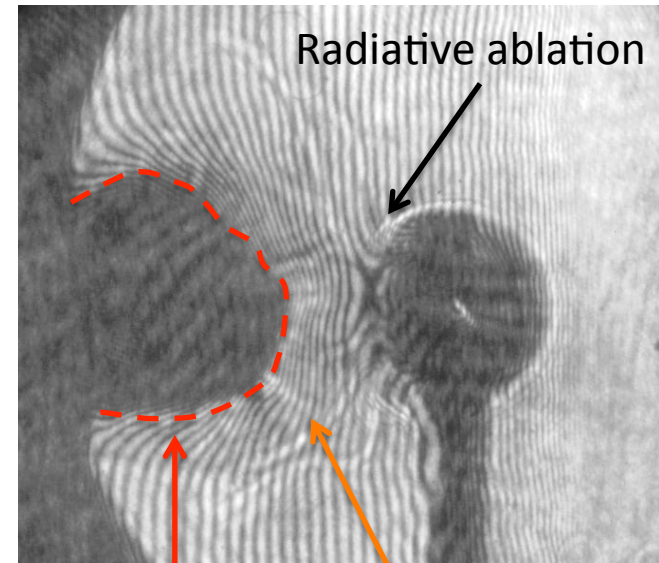
Transverse diagnostics to get V_{shock} , n_e , T_e

Shock velocity
in km/s
(2015 and 2016)



The radiative flux heats the UPSTREAM gas => Radiative precursor

Interferometry at $t = 10 \text{ ns}$



Shock Front

Radiative
Precursor

- The radiative flux plays a crucial role (radiative precursor, ablation...)
- The radiative pressure is still negligible but will play a role in future experiments
- Upcoming LMJ experiment