



U.S. MAGNET
DEVELOPMENT
PROGRAM

Recent work on high- C_p wires

Xingchen Xu

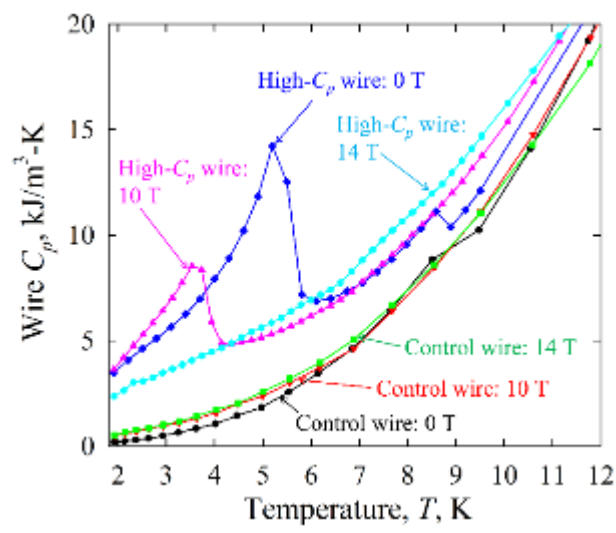
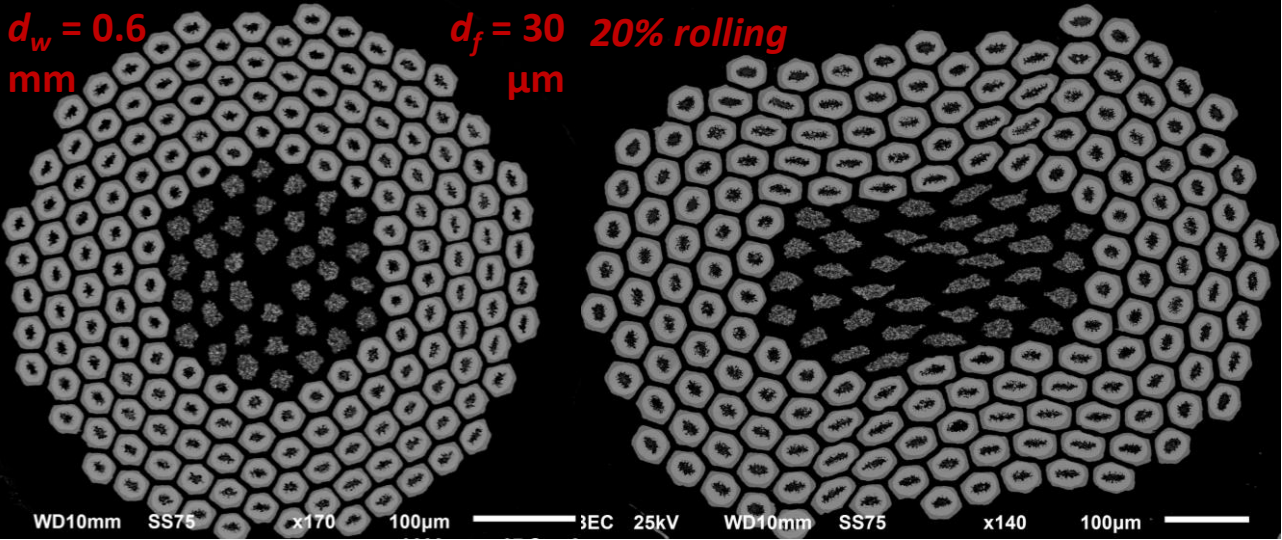
Fermi National Accelerator Laboratory

Xuan Peng (Hyper Tech Research Inc), Fang Wan (Fermilab),
Jacob Rochester & Mike Sumption (OSU)



Work since May

- ❑ High- C_p wires more or less ready for scaling up earlier this year: good drawability & small rolling degradation demonstrated in short wires (each ~50 m, based on small billets).
- ❑ What has been done since May:
 - Preparation for scaling up: raw materials, facilities, etc..
 - Meanwhile, made a few short wires, with fine tuning of wire designs. Major purpose: to obtain higher C_p and non-Cu J_c w/o affecting drawability and rolling.



No transport test yet due to LHe shortage, but from real estate analysis the non-Cu J_c and fraction should be higher than our previous wires.

Timeline: will start the first large billet ($\Phi 2''$, 3' long, ~14 kg, 217-stack) soon.