

Wide Angle Spin Echo: What Did We Learn?

Peter Falus

ILL, Grenoble, France | falus@ill.fr

Abstract. The WASP instrument at ILL is a one-of-a-kind neutron spin echo instrument. Its wavenumber range is very similar to backscattering, yet the energy range overlaps that of TOF instruments and at low energies surpasses backscattering by an order of magnitude. Still, it is a spin echo, measuring correlation in the time domain and not in the energy domain. WASP had its first neutrons in 2018 and since then we explored with many users what works and what does not with this new instrument. I will present a couple of engineering challenges and a couple of scientific examples where we were surprised and learned something new during the past 8 years.

Bio. Peter Falus received his Masters in Physics in Budapest at Lorand Eötvös University. He was an exchange student at Boston University during his undergraduate studies. He decided to return to Boston to get his PhD from MIT, also in physics. He has been constructing different instruments and studying the dynamics of polymers and other soft matter systems with them ever since. The measurement techniques he is intimately familiar with are dynamic light scattering, X-ray photon correlation spectroscopy, and neutron spin echo. He spent the last 20 years at ILL Grenoble as a scientist responsible for neutron spin echo instruments.

Monday, June 8, 2026

10:45 AM (UTC-05:00) Eastern Time (US & Canada) | Hybrid format, remote presentation

Attend in person (room K04B, NCNR) if you have access to the NIST campus, or remotely using the link below. NCNR access is not required.

<https://nist.zoomgov.com/j/1654569224?pwd=Qv6BJQYLnK92Qjk0XmPIvJUNZR4Ind.1>

Meeting ID: 165 456 9224

Passcode: 995753

One tap mobile

+16692545252,,1654569224#,,,,*995753# US (San Jose)

+16468287666,,1654569224#,,,,*995753# US (New York)

Dial by your location

- +1 669 254 5252 US (San Jose)
- +1 646 828 7666 US (New York)
- +1 646 964 1167 US (US Spanish Line)
- +1 551 285 1373 US (New Jersey)
- +1 669 216 1590 US (San Jose)
- +1 415 449 4000 US (US Spanish Line)

Meeting ID: 165 456 9224

Passcode: 995753

Find your local number: <https://nist.zoomgov.com/u/aiLHJvj9>

Join by SIP

- 1654569224@sip.zoomgov.com

Join by H.323

- 166.108.98.42 (US West)
- 166.108.66.42 (US East)

Meeting ID: 165 456 9224

Passcode: 995753