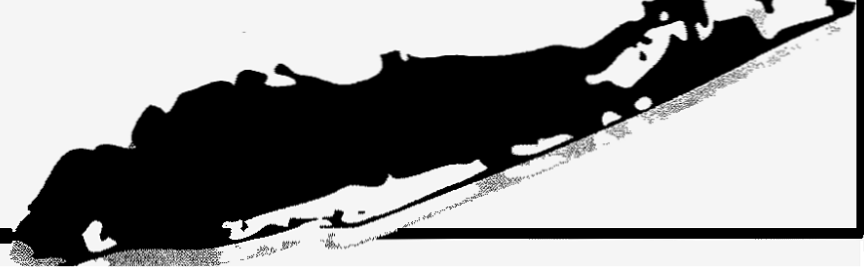




The Materials Information Society

LONG ISLAND CHAPTER

METALLAGRAM



Volume 63 Issue 7

Chapter website: <http://DoL1.eng.sunysb.edu/asm/>

When Wednesday, March 23, 2022

Where Pollo Rico Latin Bistro, Centereach, NY

Topic: Diesel Engines – Thermal Spray Applications

Speaker: John Saputo, SBU/CTSR

Social hour ... 6:00 pm Dinner ... 7:00 pm Meeting ... 8:00 pm

Members ... \$25 Guests ... \$27 Students ... \$15

(New and recently transferred-in members free)

Reservations appreciated – contact Dan Migliorino

at MigliorinoDan@gmail.com or 516-468-9615

Directions to Pollo Rico Latin Bistro

Pollo Rico is located at 2435 Middle Country Road (Rte. 25), Centereach. Probably the simplest way to get there from the LIE is to take Exit 62 (Nicolls Road) and go north on CR 97 (towards Stony Brook). Continue north for about 3 miles then take the exit to Rte. 25. At the traffic signals at the end of the ramp go left and head west (Smithtown). The restaurant will appear after about 1.5 miles, on the right side of the highway. Their telephone number is 631-471-0585. Their website is:

<http://www.polloricolatinbistro.com/>

The Speaker

John Saputo is a Ph.D. Candidate at Stony Brook University in the Department of Materials Science and Chemical Engineering working in the Center for Thermal Spray Research (CTSR) on the development of coatings for increased efficiency in internal combustion engines. He has a diverse background with experience in fields ranging from finance and accounting to high performance computing. John graduated from Stony Brook with a B.E. in Engineering Science in 2018 where he worked as a Student Assistant at the Institute for Advanced Computation Science, participated in the Department of Energy's SULI program at Lawrence Berkely National Laboratories working with the National Energy Research Scientific Computing Center, and worked as a research assistant at the CTSR.

The Topic

Internal combustion engines have been a driving force in our day-to-day lives for more than 100 years. Over this time the thermal efficiency of these systems has grown from below 5% to more than 45%. Despite these large improvements, and the advent of modern electric on road vehicles, marginal increases in efficiency in these systems are still highly sought after. While there are many pathways available to do this, the use of thermal insulation and high temperature materials has persistently appealed to engine researchers. The use of ceramic "Thermal Barrier Coatings" (TBCs) and other coating strategies to increase efficiency and facilitate high temperature operation are discussed in this talk. Aspects covered include coating design, potential system benefits, and the results of engine testing performed in conjunction with the US Army Ground Vehicle System Center.



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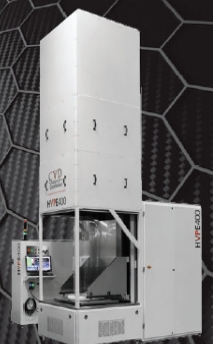
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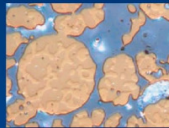
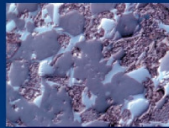
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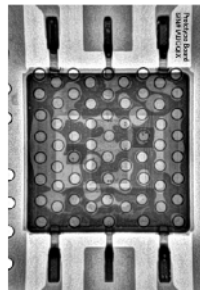
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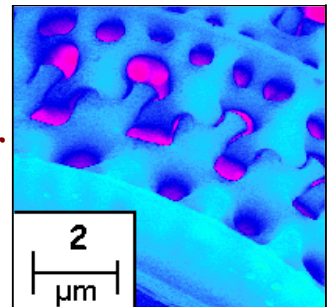
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Long Island Chapter Meeting Schedule

Apr 20, 2022 Student night
Speaker, Topic: tbd
Place; tbd

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