



# METALLAGRAM

LONG ISLAND CHAPTER



Volume 62 Issue 1

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

## WELCOME TO THE 2020-2021 YEAR

**Next Meeting . . . . . Wednesday, September 23, 2020**

**Where . . . . . Pollo Rico Latin Bistro, Centereach, NY**

**Topic: Thermally Sprayed Coatings and Their Application  
in the Modern-Day Gas Turbine Engine Components**

**Speaker: Ed Gildersleeve V... 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)*

*In-person reservations appreciated – call Peter Indrigo at 631-589-6666*

**On-line reservations, email [jquinn11733@gmail.com](mailto:jquinn11733@gmail.com) for Zoom link.**

## WELCOME TO THE CHAPTER!

*Gary Chawla, Axim Micro    Sabrina Hernandez, East Patchogue*

All new members, including those who have transferred in from another Chapter, are invited to dine free at a regular meeting of their choice. Please take us up on this offer - come along to the meeting and introduce yourself. This is an excellent way to meet with other Chapter members and to establish new business and social relationships in the area.

## The Speaker

Edward J. Gildersleeve V is a fourth-year Ph.D. candidate at SUNY Stony Brook under the advisement of Distinguished Professor Sanjay Sampath at the Center for Thermal Spray Research (CTSR). He completed his undergraduate studies at Stony Brook in the Engineering Science (ESG) program in the spring of 2016. Following graduation, Edward was taken on as a Ph.D. student by Prof. Sampath at CTSR in the Summer of 2016, with the primary field of research focus being thermally sprayed thermal barrier coatings (TBCs) for gas turbine engines (GTEs). In particular, he has focused on the relationships between processing, property, and performance of these TBCs while also considering more complex aspects such as the influence of thermal gradients on coating performance as well as the effect of underlying substrate geometry on the behavior of TBCs. Since joining CTSR, Edward has authored or co-authored 11 scientific publications in various journals and given over 10 oral presentations at professional conferences such as the Materials Science & Technology Meeting and Exhibition and the International Conference and Exposition on Advanced Ceramics and Composites. In 2018, Edward competed in and won the Oerlikon Metco Young Professionals Speaking Competition at the International Thermal Spray Conference in Orlando, Florida; this allowed him to travel to Oerlikon Metco HQ in Wohlen, Switzerland and present his findings to research scientists and staff onsite. He is currently working on completing his doctoral thesis on his research and hopes to graduate in the coming months.

## The Topic

Thermally sprayed (TS) coatings have been of significant importance in a number of industries for over a century (i.e. airplane landing gear coatings, paper roll coatings, high-temperature coatings, etc.). While the roots of the technology of TS processing of materials has not changed dramatically, the needs of the accompanying industries has mandated modernization and continued innovation. One such example of an industrial application which has necessitated this innovation and continued understanding is TS coatings for GTEs. Coating applications in GTEs range from sacrificial thick films meant to abrade during long-term operation (abradable coatings) to high-performance ceramic coatings designed to withstand the high inlet temperatures (1300C) of the combusting gases (thermal barrier coatings, TBCs) primarily to protect the underlying metallic superalloy components. In this presentation, a broad overview of TS processing techniques will be provided. In addition, the example of TBCs will be explored with a brief overview on the design considerations of such a coating system from the perspective of the relationships between materials processing, properties, and performance.



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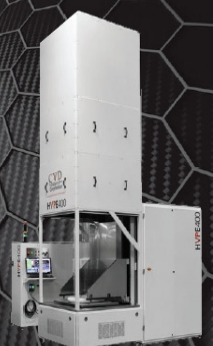
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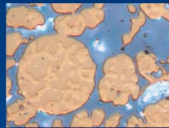
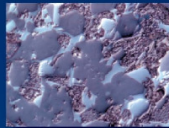
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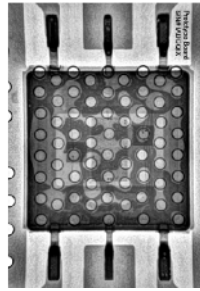
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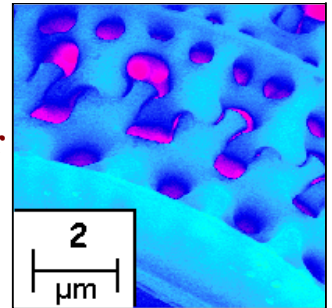
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## Directions to Pollo Rico Latin Bistro

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 (Smittown). 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/>




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## Long Island Chapter Meeting Schedule

**Oct. 21, 2020**    **Emerging Professionals Night**  
 Speaker: Rao Tipirneni, LIT  
 Topic: Failure Analysis  
 Location: Pollo Rico, Centereach

**Nov. 18, 2020**    **Student Night**  
 Various speakers, posters

## Metro NY-NJ Chapter

[www.asminternational.org/web/metro-ny-nj-chapter](http://www.asminternational.org/web/metro-ny-nj-chapter)