

## Deep-Learning Super-Resolution Imaging for Enhancing the Diagnosis of Serrated Polyps in CT Colonography

All Day Room: NA Digital Education Exhibit

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### TEACHING POINTS

To learn about serrated polyps and the benefits of deep-learning super-resolution imaging in the diagnosis of serrated polyps in CT colonography.

### TABLE OF CONTENTS/OUTLINE

1. Introduction: Introduce the serrated polyp (SP) that has emerged as a new target lesion for colorectal cancer screening. SPs can be detected reliably in CT colonography (CTC) based upon their oral contrast coating phenomenon. 2. Pitfalls: Many SPs are flat lesions. The contrast coating of SPs can be challenging to differentiate from tagged stool adhering to the bowel wall. 3. Deep-learning super-resolution (DSR) imaging: Present technical overview of the emerging DSR imaging method for reconstructing super-resolution images from low-resolution images. 4. Image enhancement by DSR imaging: Comparison of DSR imaging with conventional image processing methods in enhancing the image resolution and contrast coating of SPs. 5. DSR imaging in action: Showcase diagnostic examples of the DSR imaging in CTC cases of biopsy-confirmed SPs.