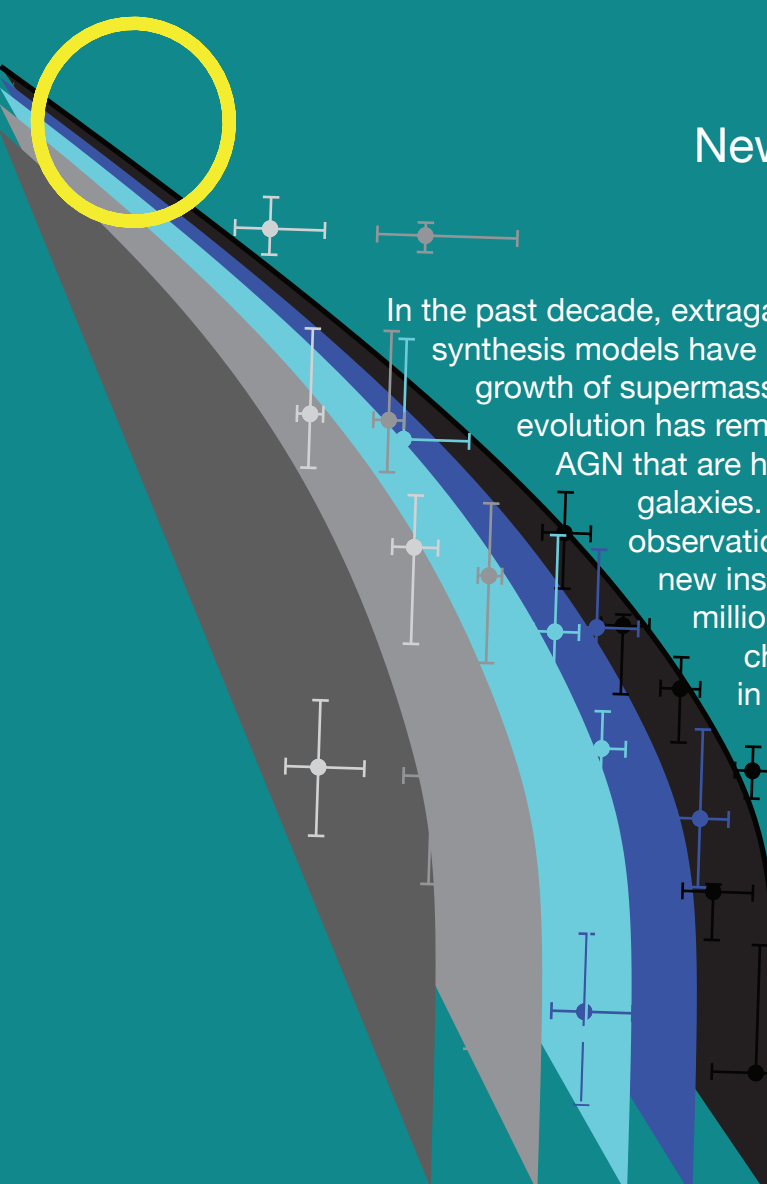# Astrophysics Seminar Series

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The Hidden Monsters:
New Windows on the Cosmic Evolution of Supermassive Black Holes

In the past decade, extragalactic surveys and active galactic nucleus (AGN) synthesis models have made great progress in understanding the cosmic growth of supermassive black holes. However, our picture of black hole evolution has remained incomplete, due to the challenges of detecting AGN that are highly obscured or hidden beneath the light of their host galaxies. With the advent of new resources including hard X-ray observations from NuSTAR, mid-infrared data from WISE, and new insights from theoretical models, we can now identify millions of these " hidden" AGN across much the sky, and characterize the nature of their obscuration and their role in the formation of galaxies.

I will describe recent efforts to characterize the host galaxies, dark matter halos, and level of obscuration in these "hidden" AGN, and will present evidence that (at least some) powerful obscured quasars represent an evolutionary phase in the evolution of their host galaxies, as predicted by models of galaxy formation. Finally, I will point to the exciting potential for future of AGN population studies with the next generation of extragalactic surveys.

17 January 3:30 pm
Bell Room (103), Rutherford Building
For more information: msi.mcgill.ca/Seminars.html