

Letter to the Editor

Where do you look for ET?

A paper in Acta Astronautica

An overlooked Schelling point candidate for optical SETI: 'MiM'

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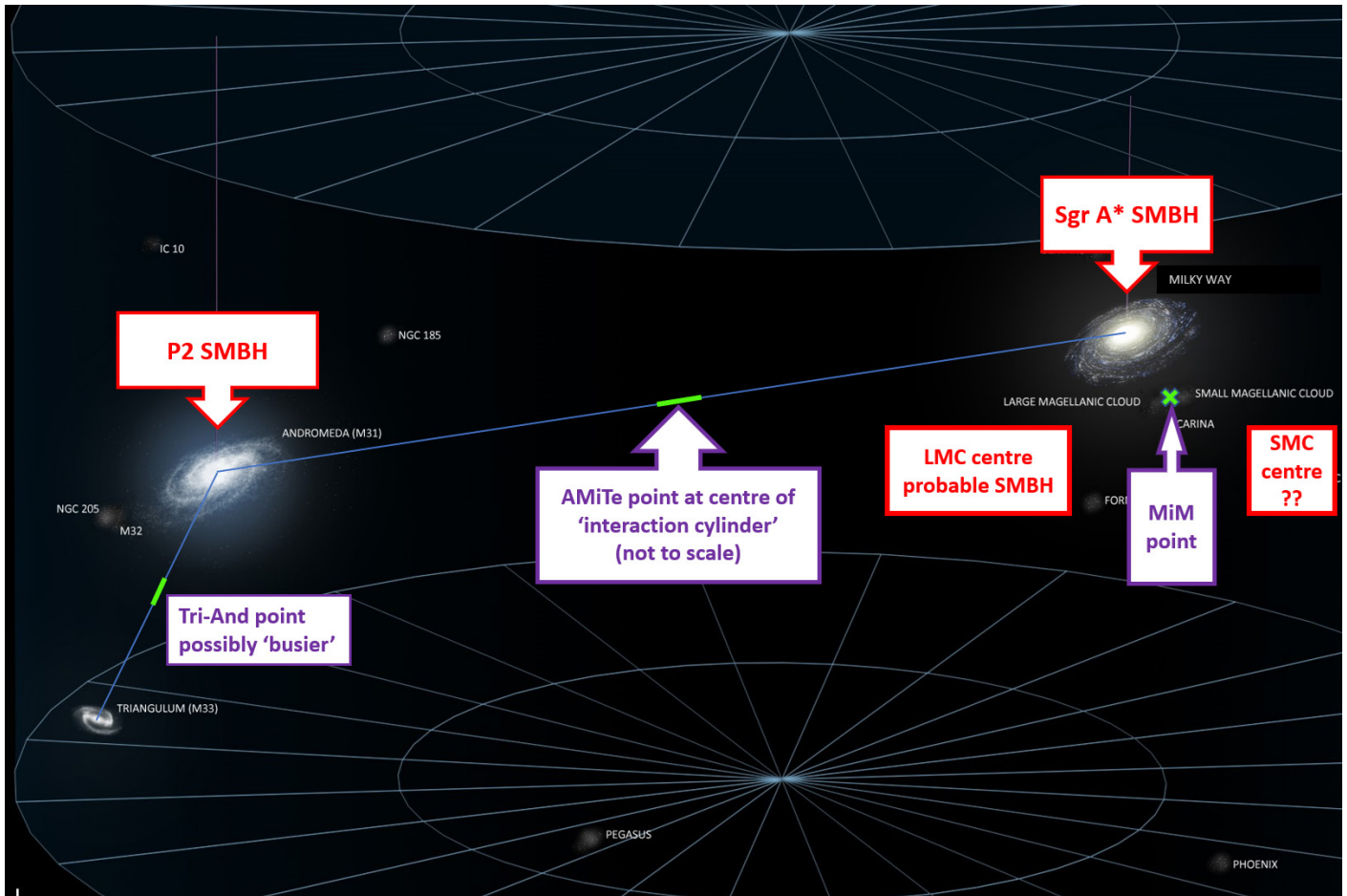
David Gahan is a physicist and entrepreneur who has contributed much to Principium and interstellar studies. In this latest communication he brings us up to date on a subject he has been working on in recent years. In particular in a recent paper for the peer reviewed journal, Acta Astronautica. The author would like to thank John Davies of i4is for help and advice, Michel Lamontagne and Robert Freeland for discussions on Project Icarus and Jason Wright for discussions on Schelling points.

"Where do you look for ET?"

Can there be any answer to that question that makes sense? We've been looking since the 1950s but 'Space is big, really big...'. One answer is to consider from the problem that Schelling posed: "if you have to meet someone in New York City tomorrow but can't communicate, what is your best option on where to go?" That's a Schelling Point, one that both you and the person you hope to meet could mutually guess. ([en.wikipedia.org/wiki/Thomas_Schelling#The_Strategy_of_Conflict_\(1960\)\)](https://en.wikipedia.org/wiki/Thomas_Schelling#The_Strategy_of_Conflict_(1960))).

The most likely answer back in the '50s was the viewing deck of the Empire State building. But in space? Now you have to consider whether you're dealing with Apes, Angels or Men. Don't write off the Apes; they just need time to - bang the rocks together? - and then they'll be as good as us and probably behave like us, so time is the only barrier. But we can write off Angels because they're not here. Something may prevent species like ours ever becoming omnipresent and omnipotent in our own galaxy. So if we limit our search for 'people like us' who are limited to power sources we can pretty much scope out - fusion power and fusion drives - then the BIGNESS OF SPACE becomes the limiting factor, and this includes how far a transmitter can signal and be picked up by the sort of tech we can imagine. It would help, wouldn't it? to have a unique place that everyone knew about to go look for signals. The only location that has been proposed hitherto is the galactic centre. Unfortunately, it's a very nasty place! In addition to the super-monstrous black hole SgrA*, there are (by x-ray observation) probably a million stellar-mass black holes flitting around it. Even a space captain of Luke Skywalker's skill would need all his time and energy dodging problems, let alone set up a beacon. In the very long timescales for a beacon to be of any use, even stars aren't safe as they can be ejected by interactions with the black hole. Need somewhere quieter. In my AMiTe Treffpunkt paper *AMiTe Treffpunkt - A proposal for communication between Kardashev Type IIb civilisations*, Principium 32 February 2021 (i4is.org/wp-content/uploads/2021/06/AMiTe-Treffpunkt-Principium32-print-2102221659-opt.pdf) I proposed the AMiTe point mid-way between the Milky Way and Andromeda galaxies, a great place for chains of starships to thread through and exchange information, but way too far for a beacon to signal with any reasonable chance of refuelling.





Meeting places in our galactic neighbourhood.
Credit: David Gahan from AMiTe Treffpunkt - A proposal for communication between Kardashev Type IIb civilisations, Principium 32 February 2021

However, there was another point in that paper also defined by Local Group geometries, the 'MiM' (mid-Magellanic) point. At the suggestion of Mike Garrett, academic director of Jodrell Bank, I expanded that idea into a paper. I'm pleased to say that it was accepted for publication by the prestigious Acta Astronautica in June. Sadly, as I wasn't funded for the work and 'Open Access' is very expensive (if not backed up by an institution) it's not available for free unless you have academic access. Partial access to give you a flavour can be seen at *An overlooked Schelling point candidate for optical SETI: 'MiM'*, Acta Astronautica Volume 235, October 2025, Pages 251-257 (www.sciencedirect.com/science/article/abs/pii/S0094576525003455).

The intention of going for publication in a peer reviewed journal is a hope that the precise co-ordinates of the MiM point will encourage observers in the southern hemisphere to point telescopes - the new 'Vera Rubin' would be nice! As any realistic search would take a few decades under the specimen calculations in the paper, even with an expensive asset such as Vera Rubin or ELT, there's a low cost method proposed. Maybe if the idea found favour with the 'Breakthrough Listen' project then a search of this unique point in space could, literally, be 'scoped'. Hence the paper. Any developments on this score will of course be reported in Principium.