Instrumentation Radio - IF 10

Conveners:
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- Most LOIs submitted are on high energy and ultrahigh energy astroparticle physics or multi messenger astrophysics.
- Most papers/LOIs are on radio detection at high energies.
- We have one paper on KIDs.
- Coordination with Cosmic Frontier: CF 7, Probes of fundamental physics. Since they, CF 7 had very limited time (90 min), we added coverage on closely related non-radio instrumentation to this session (eg. optical Cherenkov: Trinity, IceCube)
- Another reason is the increasing integration of radio and optical in experimental design (IceCube-Gen2)

IF 10 Session

Date	**7/19**	
Room	**242 MGH**	
Time	Present	Discussion
8:00	Introduction and schedule	Albrecht Karle
8:15	Radio detection of neutrinos using ice as target, and detectors in ice	Brian Clark
8:35	Radio instrumentation for neutrino detectors using ice	Cosmin Deaconu
9:00	Radar detection of neutrinos in the ice	Steven Prohira
9:20	Air shower detection of earthskimming neutrinos	Nepomuk Otte
9:40	KIDs	Thomas Cecil
10:00	Break	
10:15	Radio air shower detection	Sijbrand de Jong
10:40	IceCube Upgrade	Michael DuVernois
11:05	IceCube-Gen2 Optical, techical with km3net and P1 in context	Carsten Rott
11:30	Round table discussion	Albrecht Karle

Topics/discussion for take away messages

- What has been achieved?
- What is the next step in instrumentation development?
- What R&D would possibly enable opportunities?
- What R&D is required (if any) to advance a technique to a science scale project.
- Other: ….

—> What are our primary messages/recommendations that will come from the Instrumentation Frontier (10)?