# IceCube Masterclass Multimessenger Ice Breaker

What this is for: When the masterclass students start showing up in the morning, they're usually tired and surrounded by strangers in an unfamiliar environment. We've always given them, and ourselves, name tags to lower the threshold for talking with each other while we have breakfast together. This was then combined with first and foremost simple game that served to start conversations and help break the ice. These are new name badges with a new game, for the same purpose.

How to play: Every player carries a name tag, which is structured this way:
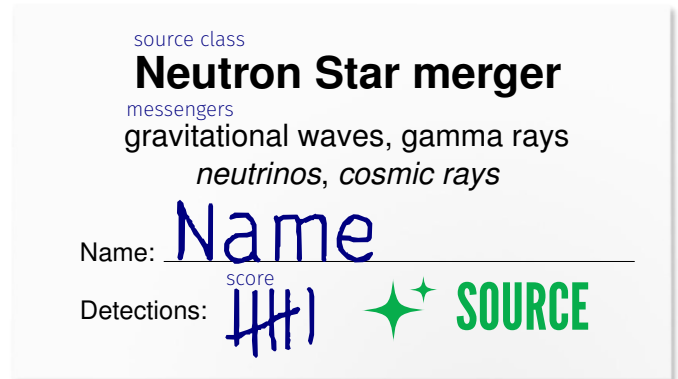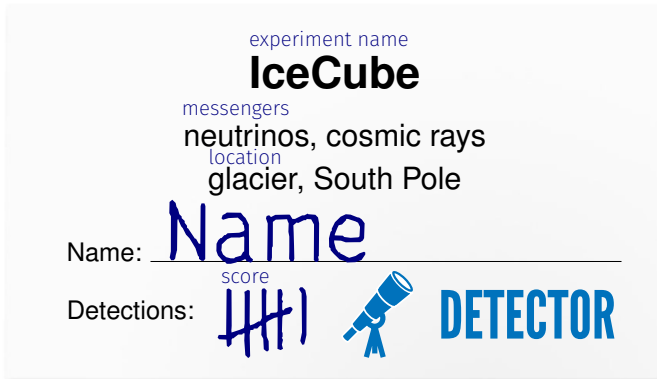
with an explanation on the back side. The students, and you as well if you want, take the roles of observers and sources. After putting their name down, they look for others with whom they can complete an observation: that is, if they have a messenger between them, which if of course vastly simplified. For each one they add to their score. This way they start talking to each other and continue to do so, spurred on by the competition. They'll inevitably have questions about all the new terms they encounter, which both gives them an excuse to talk to you and increases their engagement with the lectures that follow after. Physicists have badges, too:

Listing the languages is helpful in bilingual Brussels, you might not find it necessary at your institution.

Hypotheticals: As we know, not all the relations between sources and messengers are discovered yet. Interesting examples of these are marked in italics on the badges. The students are told that these are things we don't actually know yet, but will play as if we do.

Variant A: Sources and observers use blank tags (with only their name, score, and type) and carry the information on a card in their pocket. That way, you really need to talk in order to get points.

Variant B: Points are only made for true multimessenger observations, i.e. a source has to be connected to a team of detectors by several different messengers. Each connection gives a point for the parties on both end.