Birthday greeting for Hajnal Andréka '70

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As a birthday greeting for Hajnal Andréka, allow me please to tell forteen sentences about her creative work.

She works usually in team, as part of the research effort around her and István Németi. The people close to them know that she is exceptionally bright and innovative mathematician. My experience is that she is not only bright, but quickly finds the obstackle what blocks the other researchers.

To finish the greeting I wish to mention only two out of her research topics. This two are exceptional, because these are pioneering toward the future of the whole science. Therefore I often tell these pioneering results to my students. Even for prospective engineers in order to widen the scope of their perspective.

The first topic to mention, is from the late seventies. Assume that given a collection of objects, what the researchers want to observe and describe. Assume in addition that these objects are still unknown in detail for the science, and there is even no suitable language to talk about the properties of these objects. The pioneering discovery is, that if this collection of objects form a better kind of category, then there is an automatic way to derive a suitable language from the category itself. This theoretical result has a well known practical precursor, namely the way how the better notion of space time was derived from the real behavior of the nature itself.

Much easier to mention the second topic at this conference, since it is the "logical analysis of relativity theories". I hope, that in the far future the whole phisics will get a logically clean foundation, comparable to what mathematics has already for a while.

Happy birthday to Hajnal Andréka!