The goal of the project is to make a significant contribution to modern epistemology. While traditionally the field is understood as theory of knowledge, this project explores issues connected with the rationality of credences, or degrees of belief. A large part of modern formal epistemology is accuracy-centered, that is, it views epistemic accuracy – roughly, closeness to truth – as the sole fundamental source of epistemic good. Even if we do not subscribe to such a strong thesis, we might use accuracy as a tool in philosophical argumentation towards e.g. some norms of rationality.

In our project we would like first to connect the research on accuracy, which is interesting in itself, to an issue which has been at the forefront of the epistemology debate for many years now, that is, to peer disagreement. Some agent's epistemic peer is an agent who possesses (at least) similar evidence and evidence-processing abilities. It is highly nontrivial to postulate anything general about how a rational agent should react to the fact that an epistemic peer disagrees with her. The frequently discussed 'Equal Weight View' (EWV) says, roughly, that the agent should split the difference between her own opinion and her peer's. The EWV has been criticized for allegedly leading to numerous unfortunate consequences, e.g. to the Principle of Indifference, according to which an agent should distribute her credences uniformly over the available options. We will explore these allegations after formally cashing out the notion of a peer understood as *someone I believe to be as accurate as I am*; this can be done in numerous ways, which will be carefully investigated.

We will also study how an accuracy-centered approach to epistemology might fare if we abandon the assumption of classical logic. For starters, we will have to stop thinking that accuracy is closeness to *truth*: there might be numerous truth *values*, and so perhaps accuracy should be considered more as *closeness to the actual truth values*. This, in turn, might have implications for what we consider rational credences to be, and even for how we define credence functions themselves. Classically, a credence in a proposition is a single number, and it makes no difference whether to say that it's a *credence in A* or that it's a *credence in that A is true*. Also, from a rational agent's *credence in A* we can easily calculate her *credence in not-A*. If there are, though, say, three values, and so propositions could be true, false, or half-true, then a single number clearly does not suffice. This may lead us to the conclusion that, in general, credences should be more complex functions than just associations of single numbers with propositions. This will potentially have implications for the larger field of epistemology itself.

Another topic of discussion will be the "superconditioning" belief update rule. It is an approach to belief update which goes beyond classical Bayesianism in not requiring that the proposition corresponding to the agent's evidence belongs to the domain on which that agent's credence function is defined. The PI has recently discovered a generalized version of the superconditioning update rule, which has so far been studied only in classical cases, and will investigate its accuracy-based justification and further generalization into nonclassical analogues of more complicated update functions such as Jeffrey Conditionalisation.

We will also study how the notion of accuracy can illuminate situations when a credal agent conceives of hitherto unconsidered options. That is, the space of possibilities involved might become more fine-grained; or the agent might realize that what looked to be a collection of pairwise incompatible but jointly exhaustive options is not, in fact, exhaustive. In particular, we will study the postulate of "Reverse Bayesianism", which mandates that the relative likelihoods between the propositions in the original space need to be preserved.

In summary, the project will help us understand more about the notion of epistemic accuracy and its larger epistemic fruitfulness. This will be achieved by philosophical analysis, sometimes backed by rigorous mathematical arguments.