## <u>Summary of the (renewed) complaint against CERN and the LHC experiments as submitted to</u> the European Court of Human Rights

We base our complaint on the following facts:

- 1. According to CERN's own statements, the production of stable and/or semi-stable black holes is very much a realistic possibility. The organization even has a black holes institute. One study authored by scientists close to CERN speaks of the production of one microscopic black hole a minute in the LHC. CERN claims that these microscopic black holes will disintegrated due to the emission of Hawking-Radiation. (The study in question has been submitted to the court).
- 2. CERN has made no security provisions to guard against the dangers associated with the production of black holes those potentially most harmful objects conceivable. CERN scientists estimate that even the analysis of the expected results will take one to two years. This analysis, however, is not geared toward the detection of unexpected results such as the creation of non-radiating, stable black holes, which could escape CERN's notice for quite some time within the framework of the projected analysis.
- 3. Essentially, all of the arguments put forth by CERN as evidence for the harmlessness of the LHC experiments rest on unsubstantiated hypotheses. This is especially true for the frequently mentioned Hawking-Radiation, which supposedly guarantees the disintegration of microscopic black holes.
- 4. CERN's attempts to establish an analogy between the LHC experiments and the natural production and disintegration of black holes in the Earth's atmosphere is equally hypothetical

because no such natural production and disintegration of black holes has ever been scientifically established.

- 5. CERN's comparison between the natural and the artificial production of black holes is untenable for another reason: this comparison considers only the collision of two single protons when the LHC experiments actually involve the collision of entire bundles of protons, consisting of 100 billion protons which will be accelerated to nearly the speed of light and which will then be smashed together with the energy of two high-velocity trains, going at 150 km/h. In the LHC 600 million proton collisions will occur per second. Black holes produced naturally would, furthermore, leave the Earth due to their higher impulse, whereas man-made black holes could remain on Earth.
- 6. If we accept as valid CERN's comparison between the natural and the artificial production of black holes, then the organization's projected and potentially extremely hazardous experiments in the LHC would be unnecessary because CERN scientists could achieve their scientific goal by simply observing the relevant occurrences in the Earth's atmosphere. According to CERN's own statements, these occurrences would be the same as their manmade counterparts in the LHC, the only difference being that they would happen less frequently.
- 7. There are two recent scientific studies that illustrate the stability of the kind of microscopic black holes which could be produced in the LHC. These studies have yet to be taken into consideration. Particularly Dr. Plaga, author of one of these studies, is in the middle of a debate with CERN scientists which concerns so-called "semi-stable" or "meta-stable" black holes or relics. The production of such relics could have irreversible global consequences, even in the short term. Until recently, hardly anyone would have thought it possible that this

type of semi-stable black hole, that is to say a black hole that no longer accretes matter but which radiates intensely, could be even more dangerous than a stable black hole due to its more immediate global consequences. (Both studies as well as CERN's responses are attached to the complaint. Dr. Plaga is currently working on his rebuttal. We would also ask the court to take into consideration the patent that has been submitted with the original complaint).

- 8. There is an updated report of the Wissenschaftliche Beirat des Deutschen Bundestages (the Science Committee of the German parliament) which disregards any danger inherent in the four known categories of global risk scenarios with the explanation that, "in all probability, no realistic danger exists." This single-author report is unconvincing as evidence for the alleged harmlessness of the LHC experiments. To our knowledge, it is the only report which has been presented to the German parliament. As far as Austria, Switzerland, and the other EU member states are concerned, we do not know whether the parliaments of these countries have been informed at all of the projected experiments.
- 9. Great discrepancies in scientists' estimates of the experiments' potential global risks continue to exist. The computation of the growth rate of microscopic black holes for instance, ranges anywhere from 50 months to several billion years. Both estimates may be exaggerated, but a 27-year phase of development for a black hole has been mathematically shown to be plausible. However, even if we posit a black holes-scenario that would unfold within the time frame of several billion years, this circumstance would neither annul the jurisdiction of the European Court of Human Rights, nor change the facts of the matter under consideration.
- 10. Based on the reasons we provide in this and in the previous complaint, we request that the projected experiments be put on hold until there has been sufficient time for comprehensive

interdisciplinary discussion and examination, as has been the case in other scientific fields; in medical studies and biology for instance.