

PROPOSITIONS

belonging to the thesis

COHERENT CONTROL OF ELECTRON SPIN DYNAMICS IN NANO-ENGINEERED SEMICONDUCTOR STRUCTURES

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1. Ballistic confinement of electrons is sufficient for observing spin dephasing anisotropy in III-V semiconductors at low temperatures. (*Chapter 3*)
2. Monte-Carlo simulation is an appropriate tool for qualitative and quantitative analysis of temporal spin evolution in GaAs electron ensembles. (*Chapter 4* and *Chapter 5*)
3. There is no surprise in the one-to-one correspondence between the state of optical polarization and the state of a spin system. The surprise is that it is utilized so little for spins in solid state. (*Chapter 6*)
4. Doing useless things is a part of research, continuing to do useless things is a crime.
5. Nothing is as good or as bad as we think at the time and it is always too late to change it.
6. Human relations are the most fragile quantum system - it is impossible to characterize it without breaking.
7. The ability to see the message regardless its form separates creative people from average consumers.
8. The term "intelligence" must be redefined in a society where a professional athlete with a hobby in physics is far better off in life than a professional physicist with a sport hobby.
9. Those who discriminate are often right when saying that they have no discriminating convictions, since the discrimination is often based on prejudice and fear of all that is different and unknown, rather than a well-considered belief in the intrinsic superiority of the discriminating person.
10. "It is not the consciousness of men that determines their being, but, on the contrary, their social being that determines their consciousness" [Karl Marx (1818-1883)]. It took a hundred years for psychology to verify this statement (see "Obedience to Authority: An Experimental View" [Stanley Milgram, 1974]) and it might take another hundred years for people to understand what it means.

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