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**Ion Mihai\*** ([imihai@fmi.unibuc.ro](mailto:imihai@fmi.unibuc.ro)), Faculty of Mathematics and Computer Science, Str. Academiei 14, 010014 Bucharest, Romania. *On the Generalized Wintgen Inequality for Submanifolds in Complex and Sasakian Space Forms*. Preliminary report.

The generalized Wintgen inequality was conjectured by De Smet, Dillen, Verstraelen and Vrancken in 1999 for submanifolds in real space forms. It is also known as the DDVV conjecture. It was proven recently by Lu (2011) and by Ge and Tang (2008), independently.

The present author established a generalized Wintgen inequality for Lagrangian submanifolds and Kählerian slant submanifolds, respectively, in complex space forms in 2014.

We investigate corresponding inequalities for submanifolds in Sasakian space forms. Dillen et al. (2007) proved such inequalities for Sasakian submanifolds in Sasakian space forms. We state the generalized Wintgen inequality for Legendrian submanifolds and contact slant submanifolds in Sasakian space forms. Some geometric applications are derived.

### References

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2. Z. Lu, *Normal scalar curvature conjecture and its applications*, J. Funct. Analysis **261** (2011), 1284-1308.
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