Preface

It is my pleasure to publish here Proceedings of the 7-th Autumn Workshop on Number Theory at Hakuba. The theme of the workshop this time was on differential operators on modular forms and any mathematics related to those. As related mathematics, we can give, among others, Shimura's theory of nearly holomorphic modular forms, application to various pullback formulas and special values of L functions, periods of modular forms, explicit constructions of modular forms, and a possibility of a new area of special functions and holonomic differential equations. Maybe we can add also a possible relation to Green's functions and the arithmetic intersection theory, though we did not plan any talk about it this time.

There are several apparently different formulations and different taste about these differential operators. For actual application, some need really explicit shapes of the operators and some need only existence of the operators. Professor S. Böcherer helped me to make a precise plan of the workshop and we gathered these different approaches intentionally as they are, ignoring possible duplication of the essence of the content. Total understandings of these are left for a future investigation.

In spite of the fact that the theme this time is fairly special, many people agreed to give talks and were kind enough to write articles for the Proceedings. I would like to thank them very much as well as all the participants of the conference. We also thank staffs of Hakuba Highmount Hotel for the unchanged efficient help to the workshop which lasted for these seven years.

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