Record Nr. UNINA9910816159403321 Autore Gelb Robert **Titolo** D-modules: local formal convolution of elementary formal meromorphic connections / / Robert Gelb Pubbl/distr/stampa Berlin:,:Logos Verlag,, [2015] ©2015 **ISBN** 3-8325-9144-3 Descrizione fisica 1 online resource (98 pages) Collana Augsburger Schriften zur Mathematik, Physik und Informatik; ; 27 Disciplina 512.4 **D-modules** Soggetti Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali PublicationDate: 20150228 Nota di bibliografia Includes bibliographical references. Sommario/riassunto Long description: According to the classical theorem of Levelt-Turrittin-Malgrange and its refined version, developed by Claude Sabbah, any meromorphic connection over the field of formal Laurent series in one variable can be decomposed in a direct sum of so called elementary formal meromorphic connections. Changing the perspective, one can also study operations that can be carried out with such special differential modules. There are already formulas for the tensor product or the local formal Fourier transform, for example. This thesis analyses the local formal convolution (the multiplicative case as well as the additive case) of two elementary formal meromorphic

connections and how the convolution can itself be decomposed into a direct sum of elementary formal meromorphic connections again.