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| 1. Record Nr.           | UNINA9910788743603321                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Autore                  | Mochizuki Takuro <1972->                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Titolo                  | Asymptotic behaviour of tame harmonic bundles and an application to pure twistor D-modules . Part 1 // Takuro Mochizuki                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| Descrizione fisica      | 1 online resource (344 p.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Collana                 | Memoirs of the American Mathematical Society, , 0065-9266 ; ; number 869                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Disciplina              | 514.74                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Soggetti                | Hodge theory<br>D-modules<br>Vector bundles<br>Harmonic maps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| Nota di contenuto       | <p>""Contents""; ""Acknowledgement""; ""Chapter 1. Introduction""; ""1.1. Simpson's Meta-Theorem""; ""1.2. The purposes in this paper""; ""1.3. On the purpose (1)""; ""1.4. On the purpose (2)""; ""1.5. Some Remark""; ""1.6. The outline of the paper""; ""Part 1. Preliminary""; ""Chapter 2. Preliminary""; ""2.1. Notation""; ""2.2. Prolongation by an increasing order""; ""2.3. Preliminary for <math>I^?c</math>-equivariant bundle""; ""2.4. Some elementary preliminary for convexity""; ""2.5. Some lemmas for functions on a disc""; ""2.6. An elementary remark on some distributions""</p> <p>""2.7. Preliminary from elementary linear algebra""""2.8. Preliminary from complex differential geometry""; ""2.9. Preliminary from functional analysis""; ""2.10. An estimate of the norms of Higgs field and the conjugate""; ""2.11. Convergency of the sequence of harmonic bundles""; ""2.12. Higgs field and twisted map""; ""Chapter 3. Preliminary for Mixed Twistor Structure""; ""3.1. <math>P^{[sup(1)]}</math>-holomorphic vector bundle over <math>X \times P^{[sup(1)]}</math>""; ""3.2. Equivariant <math>P^{[sup(1)]}</math>-holomorphic bundle over <math>X \times P^{[sup(1)]}</math>""; ""3.3. Tate objects and <math>O(p, q)</math>""; ""3.4. Equivalence of some categories""</p> |

""3.5. Variation of  $P[\sup(1)]$ -holomorphic bundles""""3.6. The twistor  
 nilpotent orbit""; ""3.7. Split polarized mixed twistor structure and the  
 nilpotent orbit""; ""3.8. The induced tuple on the divisor""; ""3.9.  
 Translation of some results due to Kashiwara, Kawai and Saito""; ""3.10.  
 R-triple in dimension 0 and twistor structure""; ""Chapter 4. Preliminary  
 for Filtrations""; ""4.1. Filtrations and decompositions on a vector  
 space""; ""4.2. Filtrations and decompositions on a vector bundle"";  
 ""4.3. Compatibility of the filtrations and nilpotent maps""; ""4.4.  
 Extension of splittings""  
 ""4.5. Compatibility of the filtrations and nilpotent maps on the  
 divisors""""Chapter 5. Some Lemmas for Generically Splitted Case"";  
 ""5.1. Filtrations""; ""5.2. Compatibility of morphisms and filtrations"";  
 ""Chapter 6. Model Bundles""; ""6.1. Basic example I""; ""6.2. Basic  
 example II""; ""Part 2. Prolongation of Deformed Holomorphic Bundles"";  
 ""Chapter 7. Harmonic Bundles on a Punctured Disc""; ""7.1. Simpson's  
 main estimate""; ""7.2. The KMS-structure of tame harmonic bundles on  
 a punctured disc""; ""7.3. Basic comparison due to Simpson""; ""7.4.  
 Multi-valued flat sections""

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