

POSTSCRIPT-1998

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Chapter 1: The analyticity of the Nash blow up as given in Theorem 1 on page 8 and its application to Serre's extension problem on pages 22-24 are new but not published.

Chapter 2: The results of the \mathbb{C}^* -actions on Grassmann bundles appeared as *C^* -actions on Grassmann Bundles and the Cycle at Infinity*, *Mathematica Scandinavica* 62 (1988), 5-18.

Chapter 3: Claim of Theorem 1 on page 53 is too ambitious. The last sentence of the statement of the theorem is not touched upon until the last paragraph of the proof at page 61. The wishful claim of this last paragraph fails to materialize as can easily be seen by the examples of vector fields. The rest however is correct. Moreover the technical assumption on page 53 that the Nash blow up be smooth can be removed. For this extended and much more readable account of this theorem see *Residues of Singular Holomorphic Foliations*, *Compositio Mathematica* 70 (1989), 227-243.

Chapter 4: The generalized version of Bott's vanishing theorem, Theorem 1 on page 64, appeared as *On Bott's Vanishing Theorem and Applications to Singular Foliations*, *Turkish Journal of Mathematics*, 11 (1987), 62-67. Theorem 2 on page 67 about the existence of certain cohomology classes on the splitting manifold obstructing an embedding of a vector bundle into the tangent bundle is new but not published.

The articles mentioned above can be down loaded from
<http://www.fen.bilkent.edu.tr/~sertoz/vita.html>
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The necessity of the painstaking proof techniques of this thesis remains a mystery for me to this day...

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