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Application of the Koszul complex to the computation of cohomology sheaves.  
(Chinese. English summary)  

In this paper, based on the relative logarithmic de Rham complexes $\Omega^i_{X/S}(\log Y)$, the author, using the notion of Koszul complexes, computes the cohomology groups of the cohomology sheaves and obtains that $H^q(\Omega^i_{X/S}(\log Y) \otimes_{\mathcal{O}_X} \mathcal{O}_Z)_Q$ is generated by elements

$$\{ W_1^\lambda, W_2^\mu \xi_{i_1} \wedge \cdots \wedge \xi_{i_{q'}} \wedge \eta_{j_1} \wedge \cdots \wedge \eta_{j_{q''}} : \lambda = 0, 1, 2, \ldots, a - 1; \mu = 0, 1, 2, \ldots, b - 1; 
1 \leq i_1 < \cdots < i_{q'} \leq m; 1 \leq j_1 \leq \cdots \leq j_{q''} \leq n; q' + q'' = q \}$$

on $C$. Here $Q$ is any point on $Y$, and $C$ is a ring.

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MSC:
14F40  de Rham cohomology and algebraic geometry
13D25  Complexes (MSC2000)
13D45  Local cohomology and commutative rings

Keywords:  
de Rham complex; Koszul complex; cohomology groups