$$\bullet \underset{\infty}{\triangle} {}^{\cup}_{n}\mathbb{R}^n \ni {}_{mn}$$

$$\bullet \underset{\infty}{\triangle} \underset{n}{\triangle} {}^{\in}\mathbb{R}^n \ni {}_{\ell}{}^{n}$$

$${}_{m}{}_{\ell}{}^{n} = {}_{\ell}\left({}_{m}{}^{n}\right)^{n}_{m}$$

$$2\,\underbrace{{}_{m}{}_{\ell}{}^{n}}\,{}_{nk} = \alpha\,{}_{\ell}{}_{m}\,{}_{mk} + \beta\,{}_{m}{}_{\ell}\,{}_{\ell k} + \gamma\,{}_{k}{}_{\ell m} + \lambda\,{}_{\ell}{}_{m}\,|\,{}^{n}\,{}_{nk} + \mu\,{}_{k}{}_{m}\,|\,{}^{n}\,{}_{n\ell} + \nu\,{}_{k}{}_{\ell}\,|\,{}^{n}\,{}_{nm}$$

$${}^{j} \boxtimes \underbrace{{}_{j}{}^{i}}\,{}_{i\ell} = {}^{i}$$

$$\cdot - \cdot \boxtimes {}\,{}^{\underline{\text{tors}}}_{\text{free}}\,0$$

$$2\,\overbrace{{}_{p}\,{}_{q}\,{}^{j} \boxtimes \underbrace{{}_{j}{}^{i}}\,{}_{i\ell}} = 2\,\underbrace{{}_{p}|{}^{j}}\,\underbrace{{}_{q}|{}_{j}{}^{i}}\,{}_{i\ell} - 2\,\underbrace{{}_{q}|{}^{j}}\,\underbrace{{}_{p}|{}_{j}{}^{i}}\,{}_{i\ell}$$

$$= 2\,\underbrace{{}_{q}|{}_{p}{}^{i}}\,{}_{i\ell} - 2\,\underbrace{{}_{p}|{}_{q}{}^{i}}\,{}_{i\ell} = 2\,{}_{q}{}_{p}\,{}^{i}\,{}_{i\ell} - 2\,{}_{p}{}_{q}\,{}^{i}\,{}_{i\ell} =$$

$$\alpha\,{}_{p}{}_{q\ell} + \beta\,{}_{q}{}_{p\ell} + \gamma\,{}_{\ell}{}_{pq} + \lambda\,{}_{p}{}_{q}\,|\,{}^{n}\,{}_{n\ell} + \mu\,{}_{\ell}{}_{q}\,|\,{}^{n}\,{}_{np} + \nu\,{}_{\ell}{}_{p}\,|\,{}^{n}\,{}_{nq}$$

$$-\alpha\,{}_{q}{}_{p\ell} - \beta\,{}_{p}{}_{q\ell} - \gamma\,{}_{\ell}{}_{qp} - \lambda\,{}_{q}{}_{p}\,|\,{}^{n}\,{}_{n\ell} - \mu\,{}_{\ell}{}_{p}\,|\,{}^{n}\,{}_{nq} - \nu\,{}_{\ell}{}_{q}\,|\,{}^{n}\,{}_{np} = 2\,\underbrace{{}_{p}{}_{q}|{}^{n}}\,{}_{n\ell}$$

$$\underbrace{\bar{\nabla}_i \Gamma^m}_{} \nabla_{mj} + \underbrace{\bar{\nabla}_j \Gamma^m}_{} \nabla_{mi} \underset{\text{metric}}{=} \bar{\nabla}_{ij}$$

$$2\,\nabla_k \overbrace{\underbrace{\bar{\nabla}_i \Gamma^m}_{} \nabla_{mj} + \underbrace{\bar{\nabla}_j \Gamma^m}_{} \nabla_{mi}} = 2\overbrace{\bar{\nabla}_{ki} \Gamma^m \nabla_{mj} + \bar{\nabla}_{kj} \Gamma^m \nabla_{mi}} =$$

$$\alpha_i \nabla \bar{\nabla}_{kj} + \beta_k \nabla \bar{\nabla}_{ij} + \gamma_j \nabla \bar{\nabla}_{ik} + \lambda_i \nabla_k | \bar{\epsilon}^n \nabla_{nj} + \mu_j \nabla_k | \bar{\epsilon}^n \nabla_{ni} + \nu_j \nabla_i | \bar{\epsilon}^n \nabla_{nk} +$$

$$\alpha_j \nabla \bar{\nabla}_{ki} + \beta_k \nabla \bar{\nabla}_{ji} + \gamma_i \nabla \bar{\nabla}_{jk} + \lambda_j \nabla_k | \bar{\epsilon}^n \nabla_{ni} + \mu_i \nabla_k | \bar{\epsilon}^n \nabla_{nj} + \nu_i \nabla_j | \bar{\epsilon}^n \nabla_{nk} = 2\,\nabla_k \bar{\nabla}_{ij}$$