1139-37-386   **Alessandro Arsie** and **Paolo Lorenzoni*** (`paolo.lorenzoni@unimib.it`). *Bi-Flat F-manifolds, complex reflection groups and integrable systems of conservation laws.*

We extend some of the results proved for scalar equations in, to the case of systems of integrable conservation laws. In particular, for such systems we prove that the eigenvalues of a matrix obtained from the quasilinear part of the system are invariants under Miura transformations and we show how these invariants are related to dispersion relations. Furthermore, focusing on one-parameter families of dispersionless systems of integrable conservation laws associated to the Coxeter groups of rank 2, we study the corresponding integrable deformations up to order 2 in the deformation parameter. Each family contains both bi-Hamiltonian and non-Hamiltonian systems of conservation laws and therefore we use it to probe to which extent the properties of the dispersionless limit impact the nature and the existence of integrable deformations. It turns out that a part two values of the parameter all deformations of order one are Miura-trivial, while all those of order two are essentially parameterized by two arbitrary functions of single variables (the Riemann invariants) both in the bi-Hamiltonian and in the non-Hamiltonian case. In the two remaining cases, due to the existence of non-trivial first order deformations, there is an additional functional parameter. (Received February 17, 2018)