recommend it to anyone at all interested in universal algebra. For my own part, I will be anxiously awaiting the appearance of Volumes 2, 3, and 4.

References

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Errata to the Review (Bull. Amer. Math. Soc., April 1989, pp. 252–256, by Roger Howe) of *Groups and Geometric Analysis* by Sigurdur Helgason.

In the discussion on pages 255–256 of this review, the symbol $\natural$, which in the book signifies K-bi-invariance, was omitted everywhere it should have occurred, with considerable loss of meaning. The places where $\natural$ should have appeared are as follows:

page 255	line 28	After $\mathscr{E}'(G)$
page 255	line 31	After the second "and"
page 255	line 33	After $\mathscr{E}'(G)$
page 255	line 35	After $\mathscr{D}(G)$
page 255	line 37	After $\mathscr{E}'(G)$ (twice)
page 255	line 43	After $\mathscr{E}'(G)$
page 255	line 47	After $\mathscr{E}'(G)$
page 256	line 2	After $\mathscr{E}'(G)$
page 256	line 4	After $\mathscr{E}'(G)$

Also, in case any readers of the review were unsure as to whether the six properties of spherical functions, listed on page 255, are treated in the book, or wondered to what parts of the book they referred, the place where each property is treated is given below. I did not intend to create an impression that the properties were not in the book.

Property i) page 399 (This is Helgason's definition of spherical functions.)

ii) page 408, Lemma 3.2

iii) page 419, Theorem 4.5 (This is a form of the general principle valid for non-compact G. As noted in the review, the much stronger form valid for compact groups, which serves as motivation for the general result, is not treated except by example in the Introduction.)

iv) page 402, Proposition 2.4

v) page 414, Theorem 37

vi) page 400, Proposition 2.2.

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Direct and inverse scattering on the line, by Richard Beals, Percy Deift, and Carlos Tomei. Mathematical Surveys and Monographs, No. 28. American Mathematical Society, Providence, 1988, xiii + 209 pp. $57.00. ISBN 0-8218-1530X

The direct and inverse scattering theory for linear ordinary differential operators has been the subject of recent renewed interest. This stems in part from the so-called inverse scattering method for solving certain nonlinear partial differential equations, which uses scattering theory to convert these special nonlinear problems into linear ones. This technique was discovered by Gardner, Greene, Kruskal, and Miura [6], who described how to solve the Korteweg–de Vries equation (KdV)

$$q_t = 6qq_x - q_{xxx}$$

using the scattering theory for the ordinary differential operator family

$$L(t) = \frac{d^2}{dx^2} + q(x, t).$$