AcneAI Score

Last update: 07-29-2025

Global Acne Evaluation (GEA) scale

Dréno et al, 2011

Grade	Score	Definition
Clear	0	Residual hyperpigmentation and erythema may be present
Almost clear	1	A few scattered comedones and a few (less than five) small papules
Mild	2	Easily recognizable; less than half of the face is involved. Many comedones and many papules and pustules are present
Moderate	3	More than half of the face is involved. Numerous comedones, papules, and pustules
Severe	4	The entire face is affected and covered with comedones, numerous papules and pustules, and few nodules and cysts
Very Severe	5	Highly inflammatory acne covering the face; nodules and cysts are present

Global Acne Evaluation (GEA) scale

Tan et al, 2007

TABLE 2. Comprehensive Acne Severity Scale (CASS)		
GRADE		**DESCRIPTION**
Clear	0	No lesions to barely noticeable ones; very few scattered comedones and papules
Almost clear	1	Hardly visible from 2.5 meters away; a few scattered comedones and a few small papules; and very few pustules, comedones, and papules
Mild	2	Easily recognizable; less than half of the affected area is involved; many comedones, papules, and pustules
Moderate	3	More than half of the affected area is involved; numerous comedones, papules, and pustules
Severe	4	Entire area is involved; covered with comedones, numerous pustules and papules, a few nodules and cysts
Very severe	5	Highly inflammatory acne covering the affected area, nodules and cysts present

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Belle severity score

The overall acne severity score of a given image is computed as follows:

$$S = \frac{200}{\pi} arctan\left(20 \sum_{i=1}^{N} s_i \frac{a_i}{A}\right)$$

s_i : severity of lesion I

a_i: area of lesion I

A : total area of skin on the image

N: total number of lesions
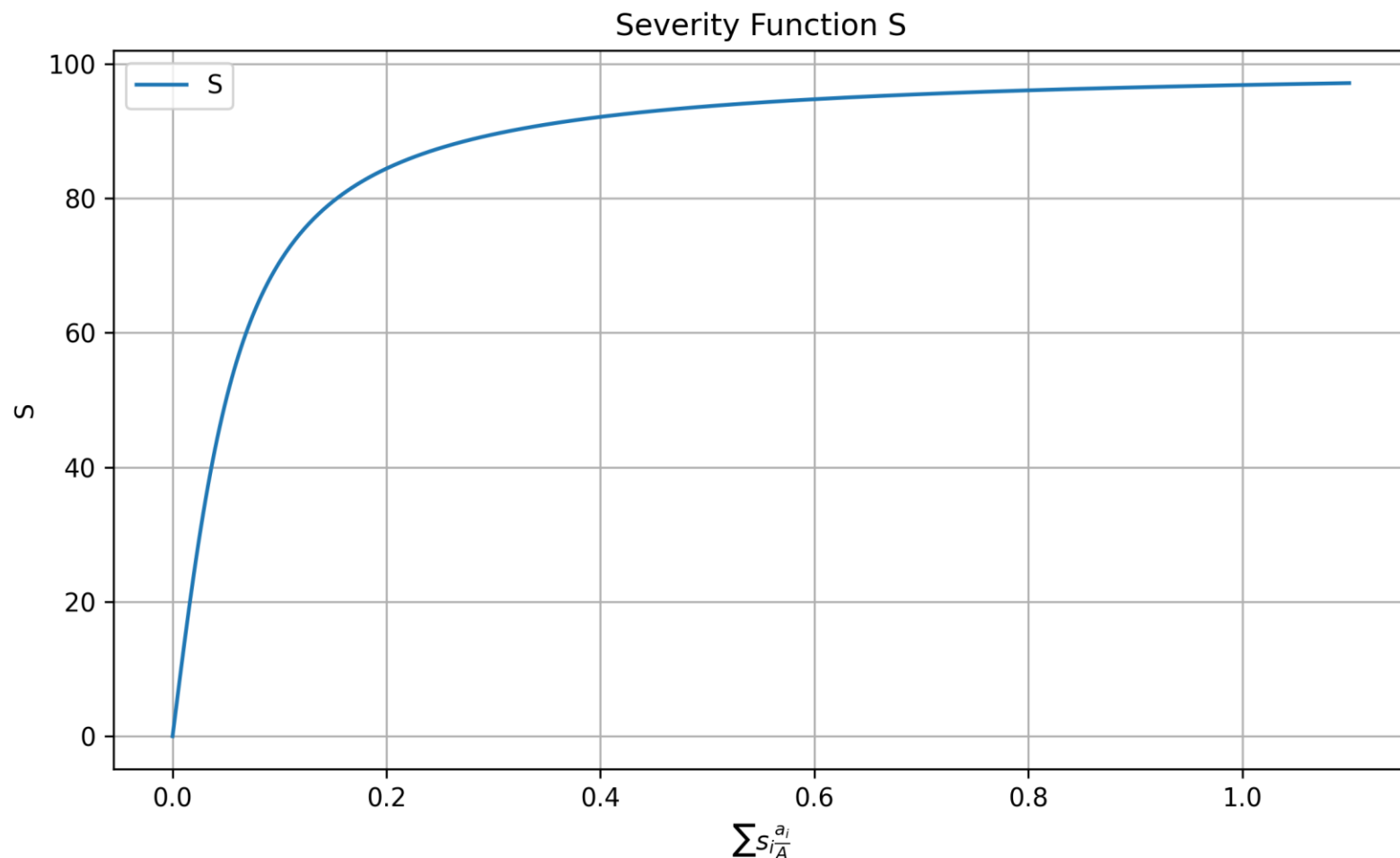
Belle severity score

from our paper

$$S = \frac{200}{\pi} arctan \left(20 \sum_{i=1}^{N} s_i \frac{a_i}{A} \right)$$

s_i : severity of lesion I
a_i: area of lesion I
A : total area of skin on the image
N: total number of lesions

Severity Function S

Conversion to GEA scale

Grade	GEA score	Belle Score
Clear	0	<0.5
Almost Clear	1	0.5 < X < 5
Mild	2	5 < X < 25
Moderate	3	25 < X <50
Severe	4	50 < X < 75
Very severe	5	>75