

# Contents

<b>1</b>	<b>Introduction</b>	<b>5</b>
<b>2</b>	<b>Definition of nonlinear trimmed estimators</b>	<b>10</b>
2.1	Least trimmed squares . . . . .	11
2.2	Definition of maximum trimmed likelihood . . . . .	12
2.3	Common framework for LTS and MTLE: general trimmed estimator . . . . .	14
<b>3</b>	<b>Consistency of GTE in nonlinear regression models</b>	<b>15</b>
3.1	Alternative definition of GTE, notation . . . . .	15
3.2	Assumptions . . . . .	17
3.3	Normal equations . . . . .	22
3.4	Consistency of general trimmed estimator . . . . .	24
3.5	Identification condition . . . . .	34
3.5.1	Nonlinear least trimmed squares . . . . .	37
3.5.2	Maximum trimmed likelihood . . . . .	40
<b>4</b>	<b>Consistency of GTE in limited-dependent-variable models</b>	<b>41</b>
<b>5</b>	<b>Examples of trimmed estimators</b>	<b>44</b>
5.1	Nonlinear regression models . . . . .	44
5.2	Limited-dependent-variable models . . . . .	46
5.2.1	Truncated regression . . . . .	46
5.2.2	Censored regression . . . . .	49
<b>6</b>	<b>Computation of trimmed estimators</b>	<b>51</b>

6.1	Subsample selection and estimation . . . . .	51
6.2	Differential evolution . . . . .	52
<b>7</b>	<b>Conclusion</b>	<b>54</b>
<b>A</b>	<b>Proofs of lemmas and other auxiliary propositions</b>	<b>56</b>